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**#1 SELLING CAMERA
GUIDE AUTHOR**

David Busch's **COMPACT FIELD GUIDE**

FOR THE
NIKON D5000



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IN PRINT**

David D. Busch

DAVID BUSCH'S COMPACT FIELD GUIDE FOR THE

NIKON® D5000

David D. Busch

Course Technology PTR

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Nikon® D5000
David D. Busch**

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Introduction

Throw away your cheat-sheets and command cards! Are you tired of squinting at tiny color-coded tables on fold-out camera cards? Do you wish you had the most essential information extracted from my comprehensive *David Busch's Nikon D5000 Guide to Digital SLR Photography* in a size you could tuck away in your camera bag? I've condensed the basic reference material you need in this handy, lay-flat book, *David Busch's Compact Field Guide for the Nikon D5000*. In it, you'll find the explanations of *why* to use each setting and option—information that is missing from the cheat-sheets and the book packaged with the camera. You *won't* find the generic information that pads out the other compact guides. I think you'll want to have both this reference and my full-sized guide—one to help you set up and use your Nikon D5000, and the other to savor as you master the full range of things this great camera can do.

About the Author

With more than a million books in print, **David D. Busch** is the world's #1 selling digital camera guide author, and the originator of popular digital photography series like *David Busch's Pro Secrets*, *David Busch's Quick Snap Guides*, and *David Busch's Guides to Digital SLR Photography*. As a roving photojournalist for more than 20 years, he illustrated his books, magazine articles, and newspaper reports with award-winning images. Busch operated his own commercial studio, suffocated in formal dress while shooting weddings-for-hire, and shot sports for a daily newspaper and upstate New York college. His photos and articles have appeared in *Popular Photography & Imaging*, *The Rangefinder*, *The Professional Photographer*, and hundreds of other publications. He's also reviewed dozens of digital cameras for CNet and *Computer Shopper*, and his advice featured on NPR's *All Tech Considered*. Visit his website at www.dsrlguides.com/blog.

Chapter 1

Quick Setup Guide

This chapter contains the essential information you need to get your Nikon D5000 prepped and ready to go. You'll learn how to use a few of the basic controls and features, and how to transfer your photos to your computer. If you want a more complete map of the functions of your camera, skip ahead to Chapter 2.

Pre-Flight Checklist

The initial setup of your Nikon D5000 is fast and easy. You just need learn a few controls, charge the battery, attach a lens, and insert a Secure Digital card.

Charging the Battery

When the EN-EL9a battery is inserted into the MH-23 charger properly (it's impossible to insert it incorrectly), an orange Charge light begins flashing, and remains flashing until the status lamp glows steadily, indicating that charging is finished, generally within two to three hours. When the battery is charged, slide the latch on the bottom of the camera and ease the battery in, as shown in Figure 1.1.



Figure 1.1

Insert the battery in the camera; it only fits one way.

Introducing Menus and the Multi Selector

You'll find descriptions of most of the controls used with the Nikon D5000 in Chapter 2, which provides a complete “roadmap” of the camera's buttons and dials and switches. However, you may need to perform a few tasks during this initial setup process, and most of them will require the MENU button and the multi selector pad.

- **MENU button.** It's located to the left of the LCD, the second button from the top. When you want to access a menu, press it. To exit most menus, press it again.
- **Multi selector pad.** A thumbpad-sized button with indentations at the North, South, East, and West “navigational” positions, plus a button in the center marked “OK” (see Figure 1.2). With the D5000, the multi selector is used extensively to navigate among menus on the LCD or to choose one of the eleven focus points, to advance or reverse display of a series of images during picture review, or to change the kind of photo information displayed on the screen. The OK button is used to confirm your choices, and also to enter Movie Shooting mode when using Live View.



Figure 1.2

The multi selector pad has four directional buttons for navigating up/down/left/right, and an OK button to confirm your selection.

Setting the Clock

The in-camera clock might have been set for you by someone checking out your camera prior to delivery, but if you do need to set it, the flashing CLOCK indicator roughly in the center of the monochrome top-panel LCD will be the giveaway. Press the MENU button to the left of the LCD, and then use the multi selector to scroll down to the Setup menu (it's marked with a wrench icon), press the multi selector button to the right, and then press the down button to scroll

down to the **Time zone and date** entry (it's on the second page), and press the right button again. The options will appear on the screen that appears next. Set **Daylight saving time**, as necessary.

Mounting the Lens

If your D5000 has no lens attached, you'll need to mount one before shooting:

1. Select the lens and loosen (but do not remove) the rear lens cap.
2. Remove the body cap on the camera by rotating the cap towards the release button.
3. Once the body cap has been removed, remove the rear lens cap from the lens, set it aside, and then mount the lens on the camera by matching the alignment indicator on the lens barrel with the white dot on the camera's lens mount (see Figure 1.3). Rotate the lens toward the shutter release until it seats securely.
4. Set the focus mode switch on the lens to AF or M/A (Autofocus). If the lens hood is bayoneted on the lens in the reversed position, twist it off and remount with the "petals" (if present) facing outward. A lens hood protects the front of the lens from accidental bumps, and reduces flare caused by extraneous light arriving at the front of the lens from outside the picture area.



Figure 1.3

Match the indicator on the lens with the white dot on the camera mount to properly align the lens with the bayonet mount.

Adjusting Diopter Correction

If you are a glasses wearer and want to use the D5000 without your glasses, or to add further correction, you can take advantage of the camera's built-in diopter adjustment, which can be varied from -2 to $+1.0$ correction. Press the shutter release halfway to illuminate the indicators in the viewfinder, then move the diopter adjustment slider next to the viewfinder (see Figure 1.4) while looking through the viewfinder until the indicators appear sharp. Should the available correction be insufficient, Nikon offers nine different Diopter-Adjustment Viewfinder Correction lenses for the viewfinder window, ranging from -1.7 to $+0.7$, at a cost of \$15-\$20 each.



Figure 1.4

Viewfinder diopter correction from -1.7 to $+0.7$ can be dialed in.

Diopter correction slider

Inserting and Formatting a Secure Digital Card

Next, insert a Secure Digital memory card. Slide the cover on the right side of the camera towards the back, and then open it. You should only remove the memory card when the camera is switched off, or, at the very least, when the yellow-green card access light (just to the right of the LCD and INFO button on the back of the camera) that indicates the D5000 is writing to the card is not illuminated.

Insert the memory card with the label facing the back of the camera oriented so the edge with the gold connectors goes into the slot first (see Figure 1.5). Close the door, and, if this is your first use of the card, format it (described next). When you want to remove the memory card later, press the card inwards, and it will pop right out.

I recommend formatting the memory card before each shooting session, to ensure that the card has a fresh file system, and doesn't have stray files left over. Format *only* when you've transferred all the images to your computer, of course.

**Figure 1.5**

The Secure Digital card is inserted with the label facing the back of the camera.

- **Setup menu format.** Press the MENU button, use the up/down buttons of the multi selector to choose the Setup menu (which is represented by that wrench icon), navigate to the **Format memory card** entry with the right button of the multi selector, and select **Yes** from the screen that appears. Press OK (in the center of the multi selector pad) to begin the format process.

Release/Drive Modes

This shooting mode determines when (and how often) the D5000 makes an exposure. Your D5000 has six release (shooting) modes: Single shot, Continuous (burst), Self-timer, Delayed remote, Quick-response remote, and Quiet shutter-release. (The two “remote” modes require the use of the ML-L3 infrared remote control.)

There are several ways to specify one of the six release modes. The easiest is to use the information edit display’s Quick Settings option, which allows you to change many of the D5000’s basic settings.

Using the Information Edit/Quick Settings Display

When you press the information edit button on the back of the camera (the bottom button on the left side of the LCD; not to be confused with the Info button on the top of the camera), the shooting information display (shown at left in Figure 1.6) appears. You can also show or hide this screen by pressing the Info button on top of the camera. (The difference between the two is simple: the Info button just turns the shooting information screen on or off; the information edit



Figure 1.6 The shooting information display shows the status of your current settings (left). Press the information edit button a second time to use the information edit screen to modify your options (right).

button does the same thing, but a second press kicks the camera into information edit mode, which allows you to change many of the settings.)

The shooting information display is a useful status screen. (Shown in the figure is the “Classic” version. A “Graphic” version is also available; in Chapter 4, I’ll show you how to select it using the **Info display format** entry in the Setup menu.) Press the information edit button again to access the information edit screen (at right in Figure 1.6), which allows you to modify the most frequently accessed options.

To change release modes, follow these steps:

1. If the LCD screen is blank, press the information edit button twice to access the information edit screen.
2. Use the multi selector pad’s left/right/up/down buttons to navigate to the settings at the side of the screen, and up to the **Release mode** option. (It’s the fifth entry down from the top.)
3. Press the OK button in the center of the multi selector pad to produce the Release mode screen, which has six options.
4. To activate the Self-timer, select the icon resembling a clock face with the timer delay period next to it. This is **10s** by default, but can be changed to 2, 5, or 20 seconds in the Custom Settings menu entry CSM #c3 (as described in Chapter 4).
5. Press the OK button to confirm your choice.
6. Press the information edit button to exit the screen.

The release modes available from the Quick Settings menu are as follows:

- **Single frame.** In this mode, the default, the D5000 takes one picture each time you press the shutter release button down all the way. If you press the shutter and nothing happens (which is very frustrating!) you may be using a focus mode that requires sharp focus to be achieved before a picture can be taken. This is called focus priority, and is discussed in more detail under “Choosing a Focus Mode,” later in this chapter.
- **Continuous.** This shooting mode can be set to produce bursts of 3 frames per second, useful for grabbing action shots of sports, or for capturing fleeting expressions (especially of children).
- **Self-timer.** You can use the Self-timer as a replacement for a remote release, to reduce the effects of camera/user shake when the D5000 is mounted on a tripod or, say, set on a firm surface, or when you want to get in the picture yourself. The picture will be taken after about 10 seconds (or 2, 5, or 20 seconds if you’ve changed the default value). A white lamp on the front of the camera will blink while the timer counts down, then remain on continuously for about two seconds just before the picture is taken. Self-timer mode is not “sticky.” After you take one picture with the Self-timer mode, the D5000 returns to Single frame mode.
- **Two-second delayed remote.** Set this release mode, and the D5000 will take a picture two seconds after you press the button on the ML-L3 infrared remote control. This mode is “sticky.” It remains in force until you turn it off manually, or simply turn off the D5000 and turn it back on.
- **Quick-response remote.** With this choice activated, the D5000 takes the photo as soon as you press the button on the ML-L3 infrared remote control. This mode is also “sticky.” It remains in force until you turn it off manually, or simply turn off the D5000 and turn it back on.
- **Quiet shutter-release.** In this mode, the D5000’s Beep sound is turned off (whether or not you’ve disabled it in the Custom Setting menu), and the viewfinder remains dark after you’ve taken a shot until you release the shutter button, and the viewing mirror flips back down. Delaying this action can allow the camera to shoot more quietly, because only a soft shutter click is heard until you release the shutter button.

Note

If you plan to dash in front of the camera to join the scene, consider using manual focus so the D5000 won’t refocus on your fleeing form and produce unintended results. (Nikon really needs to offer an option to autofocus at the *end* of the self-timer cycle.)

Selecting an Exposure Mode

The Nikon D5000 has two types of exposure modes: Scene modes, in which the camera makes virtually all the shooting decisions for you, and Advanced modes, which include semi-automatic and manual exposure modes.

Choosing a Scene Mode

The nineteen Scene modes plus the two Auto modes are selected in two different ways. Six basic Scene modes and the two Auto modes can be specified using dedicated positions on the mode dial. The others can be chosen by setting the mode dial to the Scene position, and then rotating the command dial until the Scene mode you want is displayed on the LCD. The mode dial is shown in Figure 1.7. The eight basic Scene/Auto modes are as follows:

- **Auto.** In this mode, the D5000 makes all the exposure decisions for you, and will pop up the internal flash if necessary under low-light conditions. The camera automatically focuses on the subject closest to the camera (unless you've set the lens to Manual focus), and the AF-assist illuminator lamp on the front of the camera will light up to help the camera focus in low-light conditions.
- **Auto (Flash off).** Identical to Auto mode, except that the flash will not pop up under any circumstances. You'd want to use this in a museum, during religious ceremonies, concerts, or any environment where flash is forbidden or distracting.
- **Portrait.** Use this mode when you're taking a portrait of a subject standing relatively close to the camera and want to de-emphasize the background, maximize sharpness, and produce flattering skin tones. The built-in flash will pop up if needed.



Figure 1.7

Rotate the mode dial to select an automated Scene/Auto mode.

- **Landscape.** Select this mode when you want extra sharpness and rich colors of distant scenes. The built-in flash and AF-assist illuminator are disabled.
- **Child.** Use this mode to accentuate the vivid colors often found in children's clothing, and to render skin tones with a soft, natural-looking texture. The D5000 focuses on the closest subject to the camera. The built-in flash will pop up if needed.
- **Sports.** Use this mode to freeze fast-moving subjects. The D5000 selects a fast shutter speed to stop action, and focuses continuously on the center focus point while you have the shutter release button pressed halfway. However, you can select one of the other two focus points to the left or right of the center by pressing the multi selector left/right buttons. The built-in electronic flash and focus assist illuminator lamp are disabled.
- **Close-up.** This mode is helpful when you are shooting close-up pictures of a subject from about one foot away or less, such as flowers, bugs, and small items. The D5000 focuses on the closest subject in the center of the frame, but you can use the multi selector right and left buttons to focus on a different point. Use a tripod in this mode, as exposures may be long enough to cause blurring from camera movement. The built-in flash will pop up if needed.
- **Night Portrait.** Choose this mode when you want to illuminate a subject in the foreground with flash (it will pop up automatically, if needed), but still allow the background to be exposed properly by the available light. The camera focuses on the closest main subject. Be prepared to use a tripod or a vibration-resistant lens to reduce the effects of camera shake.

When the mode dial is set to the SCENE position, you can choose thirteen additional Scene modes by rotating the command dial. Those modes are quite self-explanatory, but I'll list them here.

- **Night Landscape.** Adjusts for colors found from artificial lighting in night landscape scenes. Uses slow shutter speeds as required, so you should use a tripod for increased steadiness.
- **Party/Indoor.** Useful for indoor scenes with typical interior lighting.
- **Beach/Snow.** Compensates for extreme bright conditions found in scenes with water, sand, or snow.
- **Sunset.** Adjusts the camera to retain the deep, colorful tones found in sunset and sunrise scenes. Consider using a tripod to avoid blur if longer shutter speeds are used.
- **Dusk/Dawn.** The periods after sunset and before sunrise have their own special colors. This is another tripod-recommended Scene mode suited for those special times.

- **Pet Portrait.** Useful for capturing pets that won't sit still for a picture.
- **Candlelight.** A tripod is a must when using this mode, intended for shooting images by the dim illumination of a flickering flame.
- **Blossom.** This Scene mode offers extended depth-of-field (range of sharpness) that comes in handy when shooting a field full of flowers. A slow shutter speed might be needed, so you should consider using a tripod in this mode.
- **Autumn Colors.** Increases the richness of colors to emphasize the saturated yellows and reds found in autumn leaves.
- **Food.** Another Scene mode that sparks up the richness of colors, with an increase in contrast that makes food pictures particularly vivid.
- **Silhouette.** Darkens subjects against a bright background. Use of a tripod may be advisable.
- **High key.** Light scenes may have few truly dark areas, and be dominated by highlights and middle tones. This mode helps create bright images when shooting these scenes.
- **Low key.** Scenes that are predominantly dark can benefit from this mode, which emphasizes the detail in shadows, but still allows brighter highlights to be shown.

Choosing an Advanced Mode

The Advanced modes include Programmed-auto (or Program mode), Shutter-priority, Aperture-priority, and Manual exposure mode, known collectively as PSAM modes, for their initials. These are the modes that allow you to specify how the camera chooses its settings when making an exposure for greater creative control. Figure 1.8 shows the position of the modes described next.

- **P (Program).** This mode allows the D5000 to select the basic exposure settings, but you can still override the camera's choices to fine-tune your image, while maintaining metered exposure.
- **A (Aperture-priority).** Choose when you want to use a particular lens opening, especially to control sharpness or how much of your image is in focus. Specify the *f*/stop you want, and the D5000 will select the appropriate shutter speed for you.
- **S (Shutter-priority).** This mode is useful when you want to use a particular shutter speed to stop action or produce creative blur effects. Choose your preferred shutter speed, and the D5000 will select the appropriate *f*/stop for you.

- **M (Manual).** Select when you want full control over the shutter speed and lens opening, either for creative effects or because you are using a studio flash or other flash unit not compatible with the D5000's automatic flash metering.

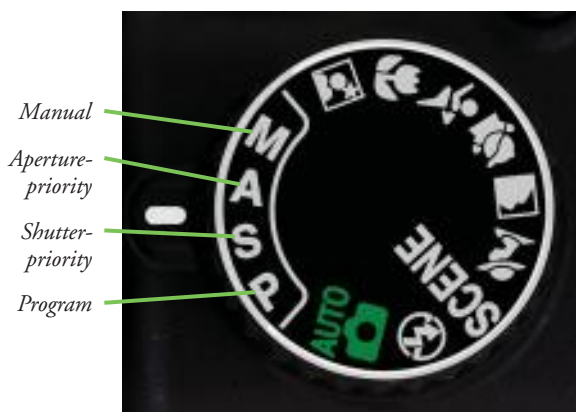


Figure 1.8

Rotate the mode dial to select an Advanced mode.

Choosing a Metering Mode

The metering mode you select while using one of the Advanced modes determines how the D5000 calculates exposure. You might want to select a particular metering mode for your first shots, although the default Matrix metering is probably the best choice as you get to know your camera. (It is used automatically in any of the D5000's Scene modes.) To change metering modes, use the information edit screen described earlier.

1. If the LCD screen is blank, press the information edit button (the last button on the left side next to the LCD) twice to access the information edit screen.
2. Use the multi selector pad's left/right/up/down buttons to navigate to the settings at the side of the screen, and up to the Metering option. (It's the third entry from the bottom.)
3. Press the OK button in the center of the multi selector pad to produce the Metering screen, which has three options: Matrix, Center-weighted, and Spot (described next). The icons for the three modes are shown in Figure 1.9.

**Figure 1.9**

Icons representing the three metering modes. Left to right, Matrix, Center-weighted, Spot metering.

- **Matrix metering.** The standard metering mode; the D5000 attempts to intelligently classify your image and choose the best exposure based on readings from a 420-segment color CCD sensor that interprets light reaching the viewfinder using a database of hundreds of thousands of patterns.
- **Center-weighted metering.** The D5000 meters the entire scene, but gives the most emphasis to the central area of the frame, measuring about 8mm.
- **Spot metering.** Exposure is calculated from a smaller 3.5 mm central spot, about 2.5 percent of the image area.

Choosing Focus Options

When you are using Program, Shutter-priority, Aperture-priority, or Manual exposure mode, you can select *when* the D5000 measures and locks in focus prior to pressing the shutter release down all the way and taking the picture. Just follow these steps using the information edit screen:

1. If the LCD screen is blank, press the information edit button twice to access the information edit screen.
2. Use the multi selector pad's left/right/up/down buttons to navigate to the settings at the side of the screen, and up to the Metering option. (It's the sixth entry down from the top.)
3. Press the OK button in the center of the multi selector pad to produce the Focus mode screen, which has four options: AF-A, AF-C, AF-S, or Manual.

You can also select Manual focus by shifting the M/A-M or AF/MF slider on the lens to M or MF. The four focus modes are as follows:

- **Auto-servo AF (AF-A).** This default setting switches between AF-C and AF-S, as described below.
- **Single-servo AF (AF-S).** This mode, sometimes called *Single Autofocus*, locks in a focus point when the shutter button is pressed down halfway, and the focus confirmation light glows at bottom left in the viewfinder. The focus will remain locked until you release the button or take the picture. This mode is best when your subject is relatively motionless.

- **Continuous-servo AF (AF-C).** This mode, sometimes called *Continuous Autofocus*, sets focus when you partially depress the shutter button (or other autofocus activation button), but continues to monitor the frame and re-focuses if the camera or subject is moved. This is a useful mode for photographing sports and moving subjects.
- **Manual focus (M).** When focus is set to Manual, you always focus manually using the focus ring on the lens. The focus confirmation indicator in the viewfinder provides an indicator when correct focus is achieved.



Note

Note that the Autofocus/Manual focus switch on the lens and the setting made in camera body must agree; if either is set to Manual focus, then the D5000 defaults to Manual focus regardless of how the other is set.

Choosing Autofocus-Area Mode

AF-area mode determines the zones in your scene used to achieve focus, from among the eleven points available in the viewfinder. (See Figure 1.10.)

1. Press the MENU button, and press the left multi selector button to highlight the column of icons down the left side of the menu screen.
2. Press the up/down keys to navigate to the Custom menu (indicated by a Pencil icon).



Figure 1.10

Available focus points are highlighted in red.

3. Press the right multi selector key twice to choose Autofocus, and then the down key to select Custom Setting **a1: AF-area mode**. Press the right key to view the four selections available.
4. Choose the AF-area mode (described next), and press the OK button to select the option.
5. Press the MENU button again (or just tap the shutter release button) to exit the menu.
 - **Single point.** You always choose which of the eleven points are used, and the Nikon D5000 sticks with that focus bracket, no matter what. This mode is best for non-moving subjects.
 - **Dynamic area.** You can choose which of the eleven focus zones to use, but the D5000 will switch to another focus mode when using AF-C or AF-A mode (described next) and the subject moves. This mode is great for sports or active children.
 - **Auto-area.** This default mode chooses the focus point for you, and can use distance information when working with a lens that has a G or D suffix in its name.
 - **3D-tracking (11 points).** You can select the focus zone, but when not using AF-S mode, the camera refocuses on the subject if you reframe the image.

Adjusting White Balance and ISO

If you like, you can custom-tailor your white balance (color balance) and ISO (sensitivity) settings. To start out, it's best to set white balance (WB) to Auto, and ISO to ISO 200 for daylight photos, and to ISO 400 for pictures in dimmer light. You can adjust either one now by using the information edit screen described several times already in this chapter. White balance is third from the top in the right-hand column; ISO is fourth from the top.

Reviewing the Images You've Taken

The Nikon D5000 has a broad range of playback and image review options, and I'll cover them in more detail in Chapter 3. For now, you'll want to learn just the basics. Here is all you really need to know at this time, as shown in Figure 1.11:

- **Display an image.** Press the Playback button (marked with a white right-pointing triangle) at the upper-left corner of the back of the camera to display the most recent image on the LCD.



- | | | |
|----------------------------------|------------------------------|--|
| 1 <i>Play back images</i> | 5 <i>Picture information</i> | 9 <i>Edit current photo in Retouch menu</i> |
| 2 <i>Delete photo</i> | 6 <i>Protect</i> | 10 <i>Change type of information displayed</i> |
| 3 <i>Help/Thumbnail/Zoom Out</i> | 7 <i>Previous/Next photo</i> | 11 <i>Next photo</i> |
| 4 <i>Zoom In</i> | 8 <i>Previous photo</i> | |

Figure 1.11 Review your images.

- **Scroll among images.** Spin the command dial left or right to review additional images. You can also use the multi selector left/right buttons. Press right to advance to the next image, or left to go back to a previous image.
- **Change image information display.** Press the multi selector button up or down to change among overlays of basic image information or detailed shooting information.
- **Magnify/reduce image on screen.** Press the Zoom In button repeatedly to zoom in on the image displayed; the Zoom Out button reduces the image. A thumbnail representation of the whole image appears in the lower-right corner with a yellow rectangle showing the relative level of zoom. At intermediate zoom positions, the yellow rectangle can be moved around within the frame using the multi selector.

- **Protect images.** Press the Protect button to mark an image and shield it from accidental erasure (but not from reformatting of the memory card).
- **Delete current image.** Press the Trash button twice to remove the photo currently being displayed.
- **Exit playback.** Press the Playback button again, or just tap the shutter release button to exit playback view.

You'll find information on viewing thumbnail indexes of images, automated playback, and other options in Chapter 3.

Using the Built-in Flash

The built-in flash is easy enough to work with that you can begin using it right away, either to provide the main lighting of a scene or as supplementary illumination to fill in the shadows.

- **Activating flash in Scene modes:** The built-in flash will pop up automatically as required in Auto, Portrait, Child, Close-up, and Night Portrait Scene modes.
- **Activating flash in Advanced modes:** To use the built-in flash in Manual, Shutter-priority, Aperture-priority, or Program modes, just press the flash pop-up button (shown in Figure 1.12). When the flash is fully charged, a lightning bolt symbol will flash at the right side of the viewfinder display.



Figure 1.12 The pop-up electronic flash can be used as the main light source or for supplemental illumination.

- **In P and A modes:** When using P (Program) and A (Aperture-priority) exposure modes, the D5000 will select a shutter speed for you automatically from the range 1/200th to 1/60th seconds. You can select an aperture, and the flash exposure will be calculated automatically.
- **In S (Shutter-priority) mode:** You select the shutter speed from 1/200th to 30 seconds, and the flash exposure will be calculated automatically.
- **In M (Manual) mode:** You select the shutter speed from 1/200th (the highest shutter speed that can be used in standard flash modes) to 30 seconds, and aperture. The flash exposure will be calculated automatically.

Transferring Photos to Your Computer

The final step in your picture-taking session will be to transfer the photos you've taken to your computer for printing, further review, or image editing. I always recommend using a card reader attached to your computer to transfer files, because that process is generally a lot faster and doesn't drain the D5000's battery. However, you can also use a cable for direct transfer, which may be your only option when you have the cable and a computer, but no card reader (perhaps you're using the computer of a friend or colleague, or at an Internet café).

To transfer images from the camera to a Mac or PC computer using the USB cable:

1. Turn off the camera.
2. Pry back the rubber cover that protects the D5000's USB port, and plug the USB cable furnished with the camera into the USB port (see Figure 1.13).



Figure 1.13

Images can be transferred to your computer using a USB cable.

USB port

3. Connect the other end of the USB cable to a USB port on your computer.
4. Turn on the camera. The operating system itself, or installed software such as Nikon Transfer or Adobe Photoshop Elements Transfer usually detects the camera and offers to copy or move the pictures. Or, the camera appears on your desktop as a mass storage device, enabling you to drag and drop the files to your computer.

To transfer images from a Secure Digital card to the computer using a card reader, do the following:

1. Turn off the camera.
2. Slide open the memory card door, press the edge of the card in, and it will pop out so you can remove the SD card from the camera.
3. Insert the Secure Digital card into your memory card reader. Your installed software detects the files on the card and offers to transfer them. The card can also appear as a mass storage device on your desktop, which you can open and then drag and drop the files to your computer.

Chapter 2

Nikon D5000 Roadmap

You should find this Streetsmart Roadmap of the functions of the D5000's controls more useful than the tiny black-and-white drawings in the manual packed with the camera, which has dozens of cross-references that send you on an information scavenger hunt through dozens of pages. Everything you need to know about the controls themselves is here. You'll find descriptions of menus and settings in Chapters 3 and 4.

Nikon D5000: Front View

Figure 2.1 shows a front view of the Nikon D5000 from a 45-degree angle. The main components you need to know about are as follows:

- **Shutter release.** Angled on top of the handgrip is the shutter release button, which has multiple functions. Press this button down halfway to lock exposure and focus. Press it down all the way to actually take a photo or sequence of photos if you're using the Continuous shooting mode. Tapping the shutter button when the D5000's exposure meters have turned themselves off reactivates them, and a tap can be used to remove the display of a menu or image from the rear color LCD.
- **Infrared sensor.** You can trigger the D5000 remotely using the optional ML-L3 infrared remote control, which emits a signal that is detected by this sensor. (The D5000 can also use the MC-DC2 wired remote control, which plugs into the GPS/Remote port on the left side of the camera.)
- **On/Off switch.** Turns the D5000 on or off.
- **Red-eye reduction/Self-timer/Autofocus assist lamp.** This LED provides a blip of light shortly before a flash exposure to cause the subjects' pupils to close down, reducing the effect of red-eye reflections off their retinas. When using the Self-timer, this lamp also flashes to mark the countdown until the photo is taken, and serves to provide some extra illumination in dark environments to assist the autofocus system.



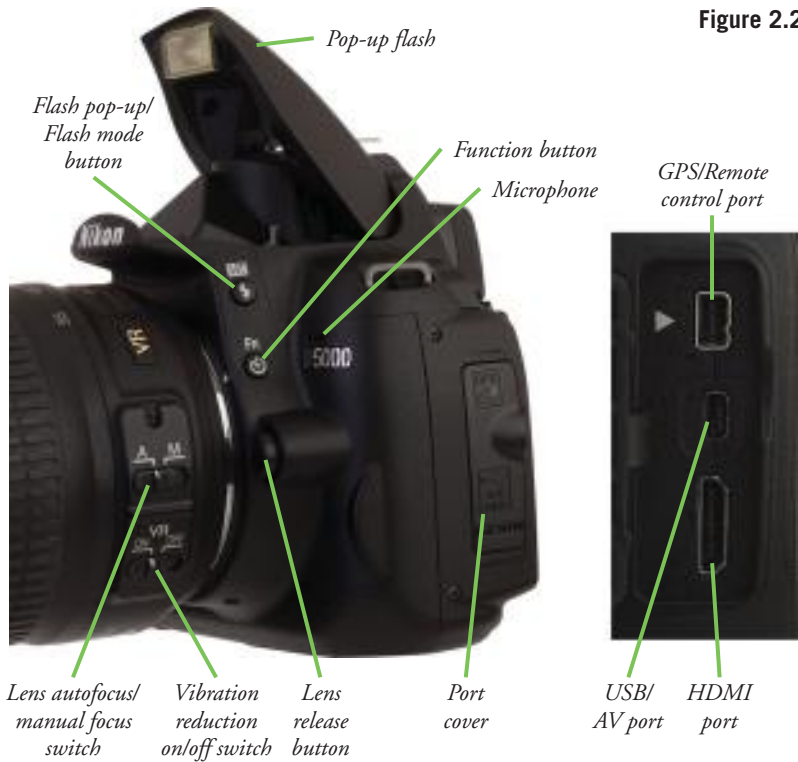
Figure 2.1

- **Hand grip.** This provides a comfortable hand-hold, and also contains the D5000's battery.
- **Memory card door.** Slide this door toward the back of the camera to provide access to the SD memory card slot.
- **AC adapter port.** Connect the optional EP-5 power cable from the EH-5a AC adapter into this port.

Figure 2.2 shows a front view of the Nikon D5000 from the other side, with the electronic flash elevated. The controls here include

- **Lens release button.** Press this button to unlock the lens, and then rotate it away from the shutter release button to dismount your optics.
- **Microphone.** Records monaural sound when shooting movies.
- **Flash pop-up/Flash mode button.** This button releases the built-in flash so it can flip up and start the charging process. If you decide you do not want to use the flash, you can turn it off by pressing the flash head back down. Hold down this button while spinning the command dial to choose a flash mode. I'll explain how to use the various flash modes (red-eye reduction, front/rear curtain sync, and slow sync) in Chapter 3, along with some tips for adjusting flash exposure.

Figure 2.2



- **Pop-up flash.** The flash elevates from the top of the camera (see Figure 2.4), theoretically reducing the chances of red-eye reflections, because the higher light source is less likely to reflect back from your subjects' eyes into the camera lens. In practice, the red-eye effect is still possible (and likely), and can be further minimized with the D5000's red-eye reduction lamp (which flashes before the exposure, causing the subjects' pupils to contract), and the after-shot, red-eye elimination offered in the Retouch menu. (Your image editor may also have anti-red-eye tools.) Of course, the best strategy is to use an external Speedlight that mounts on the accessory shoe on top of the camera (and thus is even higher) or a flash that is off-camera entirely.
- **Fn (Function) button.** This conveniently located button can be programmed to perform any one of several functions (including changing the metering mode, disabling the built-in electronic flash, or changing the AF-area mode).
- **Camera body Autofocus/Manual focus switch.** Changes from Autofocus to Manual focus. This switch and the one on the lens must agree. If either is set to Manual focus, then the camera focuses only manually.

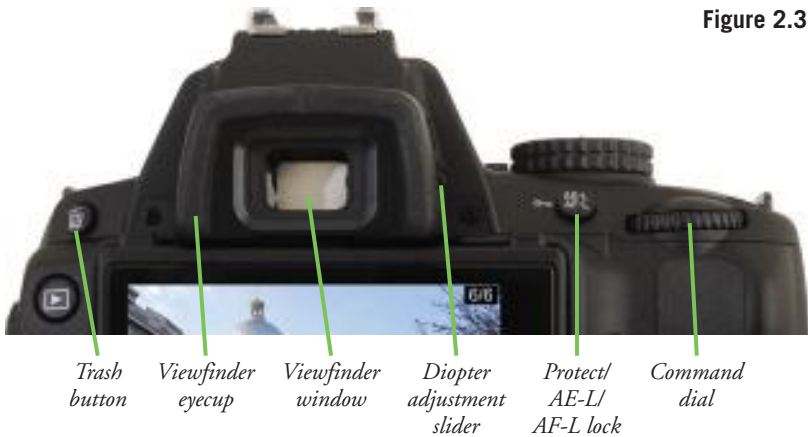
- **Lens Autofocus/Manual focus switch.** Changes from Autofocus to Manual focus.
- **Vibration reduction on/off switch.** If available on a particular lens, it turns the lens's image stabilization features on or off.
- **Port cover.** These rubber covers protect the input/output ports listed next. (See Figure 2.3.)
- **USB port/AV Port.** Plug in the UC-E6 USB cable furnished with your Nikon D5000 (a standard USB mini cable will not fit) and connect the other end to a USB port in your computer to transfer photos. Plug the supplied EG-CP14 audio/video cable into this port to link to a television to view your photos and movies on a large standard definition television screen.
- **HDMI port.** You need to buy an accessory cable (a C mini-pin HDMI cable available from third-party suppliers) to connect your D5000 to an HDTV, as one to fit this port is not provided with the camera. If you have a high-resolution television, it's worth the expenditure to be able to view your camera's output in all its glory.
- **GPS/Remote release connector.** You can plug in the GP-1CA90 cable from the Nikon GPS-1 geotagging accessory here to embed latitude, longitude, and altitude information in your images. The Nikon MC-DC2 remote release also can be plugged in here, or into the GP-1CA90 cable, which has a pass-through connection to allow use of both devices at once.

The Nikon D5000's Back Panel

One key feature of the Nikon D5000's back panel is the 2.7-inch swiveling screen. The movement makes it easier to preview images with Live View from a variety of angles, particularly when previewing through the optical viewfinder is awkward or difficult. You can also review your images after they are taken from any of the possible angles although, arguably, the preview versatility is more important. When the LCD is flat against the back of the camera (either facing you, or reversed), you can fold it downwards to approximately a 90-degree angle, then rotate the screen on its swivel to the orientation you want. Here are your options:

- **"Closed."** In this configuration the LCD is reversed so that the viewing surface is facing the innards of the camera, and only a blank faceplate is seen on the back. This orientation is very useful when shooting in environments where you don't want to review pictures as they are taken or at concerts, etc., and reversing the LCD also protects it from scratches and dirt, effectively reducing the need for a screen "protector."

Figure 2.3



- **“Open.”** With the LCD swiveled around to its normal position, the back panel of the D5000 looks like the reverse side of any typical dSLR. You’ll probably use the LCD in this orientation most of the time.
- **Flipped down.** With the LCD flipped down, you can easily view the image from waist level. If you’ve ever had to crouch or lay on the ground to capture a low-level shot, or (more likely) avoided such a perspective altogether, you’ll love being able to choose your shooting angle without the need for a right-angle finder attachment.
- **Flipped down, reversed.** Rotate the LCD down, then swivel it around so you can hold the camera high overhead while composing your image. Those of us back in the film era who used to flip our twin-lens reflex cameras upside down and hold them overhead at parades will especially treasure this capability.
- **Self-portrait mode.** Once you’ve reversed the LCD for overhead use, it’s simple to continue swiveling so that it faces frontwards, making it possible to shoot your own self portrait (either while hand-holding the camera or with it on a tripod or supporting surface). The D5000 is smart enough to sense the orientation of the camera and LCD, and flip the screen image, too, when necessary, so you always view a right-side-up picture.
- **Side view.** You can tilt the LCD to point to one side so you can view a vertically oriented image.

The back panel of the Nikon D5000 also bristles with almost a dozen different controls, buttons, and knobs. That might seem like a lot of controls to learn, but you’ll find that it’s a lot easier to press a dedicated button and spin a dial than to

jump to a menu every time you want to access one of these features. You can see the controls clustered along the top edge of the back panel in Figure 2.3. The key buttons and components and their functions are as follows:

- **Viewfinder eyecup.** You can frame your composition by peering into the viewfinder. It's surrounded by a soft rubber eyecup that seals out extraneous light when pressing your eye tightly up to the viewfinder, and it also protects your eyeglass lenses (if worn) from scratching. It can be removed and replaced by the DK-5 eyepiece cap when you use the camera on a tripod, to ensure that light coming from the back of the camera doesn't venture inside and possibly affect the exposure reading. Shielding the viewfinder with your hand may be more convenient (unless you're using the self-timer to get in the photo yourself).
- **Diopter adjustment slider.** Move this control to adjust the diopter correction for your eyesight, as described in Chapter 1.
- **AE-L/AF-L lock/Protect.** When shooting pictures, this button locks the exposure or focus that the camera sets when you partially depress the shutter button. The exposure lock indication (AE-L icon) appears at bottom left in the viewfinder. If you want to recalculate exposure or autofocus with the shutter button still partially depressed, press the button again. The exposure/autofocus will be unlocked when you release the shutter button or take the picture. To retain the exposure/autofocus lock for subsequent photos, keep the button pressed while shooting. When reviewing a picture on the LCD, press once to protect the image, and a second time to unprotect it. A key symbol appears when the image is displayed to show that it is protected. (This feature safeguards an image from erasure when deleting or transferring pictures only; when you format a card, protected images are removed along with all the others.)
- **Command dial.** The command dial is used to set or adjust many functions, such as shutter speed, ISO value, or image quality.
- **Trash.** Press twice when viewing an image on the LCD to erase that image.

You'll be using the five buttons to the left of the LCD monitor (shown in Figure 2.4) quite frequently.

- **Playback button.** Press this button to review images you've taken, using the controls and options I'll explain in the next section. To remove the displayed image, press the Playback button again, or simply tap the shutter release button.
- **MENU button.** Summons/exits the menu displayed on the rear LCD of the D5000. When you're working with submenus, this button also serves to exit a submenu and return to the main menu.

Figure 2.4



- **Thumbnail/Zoom Out/Help.** In Playback mode, use this button to zoom out of an image that is magnified, or to change from full-screen view to four, nine, or 72 thumbnails, as well as a calendar view that allows viewing images by the date they were taken. I'll explain zooming and other playback options in the next section. Press the button when a menu item is highlighted to produce a brief screen that describes the function of that item.
- **Zoom In button.** In Playback mode, press to zoom in on an image.
- **Information edit button.** Press to view the information settings screen, or twice to change to the information edit screen to change any of the visible values. Hold down while pressing the Info button on top of the camera to reset the camera settings to their factory values.

More controls reside on the right side of the back panel, as shown in Figure 2.5. The key controls and their functions are as follows:

- **Live View button.** Press this button to activate Live View; press a second time to turn off Live View.
- **Multi selector.** This joystick-like button can be shifted up/down and side to side to provide several functions, including AF point selection, scrolling around a magnified image, or trimming a photo. Within menus, pressing the up/down buttons moves the on-screen cursor up or down; pressing towards the right selects the highlighted item and displays its options; pressing left cancels and returns to the previous menu.



Figure 2.5

- **OK button.** Use this button to confirm a selection. When working with menus, press the MENU button instead to back out without making a selection. When reviewing an image on the LCD, press to apply the Retouch menu to that image. When using Live View mode, this button activates the movie-making feature; press a second time to stop motion picture capture.
- **Memory card access lamp.** When lit or blinking, this lamp indicates that the memory card is being accessed.
- **Speaker.** Plays back monaural sound from your movies.

Playing Back Images

Here are the basics involved in reviewing images on the LCD screen (or on a television screen you have connected with a cable).

- **Start review.** To begin review, press the Playback button at the upper-left corner of the back of the D5000. The most recently viewed image will appear on the LCD. Press the OK button to play back movies.
- **Playback folder.** Image review generally shows you the images in the currently selected folder on your memory card. A given card can contain

several folders (a new one is created anytime you exceed 999 images in the current folder). You can use the Playback folder menu option in the Playback menu (as I'll explain in Chapter 3) to select a specific folder, or direct the D5000 to display images from all the folders on the memory card.

- **View thumbnail images.** To change the view from a single image to four, nine, or 72 thumbnails, follow the instructions in the “Viewing Thumbnails” section that follows.
- **Zoom in and out.** To zoom in or out, press the Zoom In button, following the instructions in the “Zooming the Nikon D5000 Playback Display” in the next section. (It also shows you how to move the zoomed area around using the multi selector pad.)
- **Move back and forth.** To advance to the next image, press the right edge of the multi selector pad; to go back to a previous shot, press the left edge. When you reach the beginning/end of the photos in your folder, the display “wraps around” to the end/beginning of the available shots.
- **See different types of data.** To change the type of information about the displayed image that is shown, press the up and down portions of the multi selector pad. To learn what data is available, read the “Working with Photo Information” section later in this chapter.
- **Retouch image.** Press the OK button while a single image is displayed on the screen to jump to the Retouch menu to modify that photograph. (I'll explain the workings of the Retouch menu in Chapter 4.)
- **Remove images.** To delete an image that's currently on the screen, press the Trash button once, and then press it again to confirm the deletion. To select and delete a group of images, use the **Delete** option in the Playback menu to specify particular photos to remove, as described in more detail in Chapter 3.
- **Cancel playback.** To cancel image review, press the Playback button again, or simply tap the shutter release button.

Zooming the Nikon D5000 Playback Display

Here's how to zoom in and out on your images during picture review:

1. When an image is displayed (use the Playback button to start), press the Zoom In button to fill the screen with a slightly magnified version of the image. You can keep pressing the Zoom In button to magnify a portion of the image up to 6.7X.
2. A navigation window appears in the lower-right corner of the LCD showing the entire image. Keep pressing to continue zooming in.

3. A yellow box in the navigation window shows the zoomed area within the full image. The entire navigation window vanishes from the screen after a few seconds, leaving you with a full-screen view of the zoomed portion of the image.
4. Use the command dial to move to the same zoomed area of the next/previous image.
5. Use the Zoom Out button to zoom back out of the image.
6. Use the multi selector buttons to move the zoomed area around within the image. The navigation window will reappear for reference when zooming or scrolling around within the display.
7. The display will place white borders around up to 10 faces detected while zooming (Figure 2.6, top). The white boxes will appear within the yellow box that indicates the zoomed area. You can rotate the sub-command dial to scroll among the detected faces.
8. To exit Zoom In/Zoom Out display, keep pressing the Zoom Out button until the full-screen/full-image/information display appears again or press the OK button. If you continue pressing the Zoom Out button from the full-screen view, you'll be shown four, nine, and 72 thumbnails, plus a calendar view.

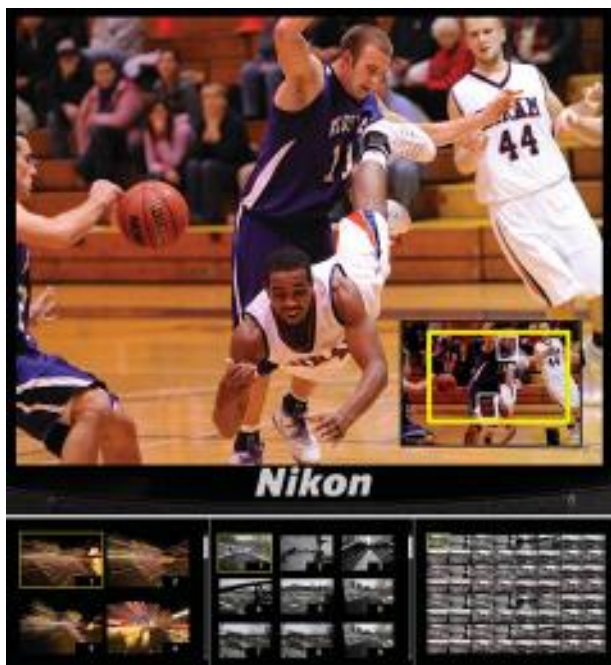


Figure 2.6

Viewing Thumbnails

The Nikon D5000 provides other options for reviewing images in addition to zooming in and out. The D5000 lets you switch quickly from single- to four- to nine- to 72-image views, with a scroll bar displayed at the right side of the screen to show you the relative position of the displayed thumbnails within the full collection of images in the active folder on your memory card. Figure 2.6 offers a comparison between the three levels of thumbnail views (bottom). The Zoom In and Zoom Out buttons are used.

- **Add thumbnails.** To increase the number of thumbnails on the screen, press the Zoom Out button. The D5000 will switch from single image to four thumbnails to nine thumbnails to 72 thumbnails, and then to calendar view (discussed next). Additional presses in calendar view toggles back and forth between highlighting calendar dates, or showing pictures taken on that date. (The display doesn't cycle back to single image again.)
- **Reduce number of thumbnails.** To decrease the number of thumbnails on the screen, press the Zoom In button to change from calendar view to 72 to nine thumbnails to four thumbnails, or from four to single-image display. Continuing to press the Zoom In button once you've returned to single-image display starts the zoom process described in the previous section.
- **Change highlighted thumbnail area.** Use the multi selector (or the main and sub-command dials) to move the yellow highlight box around among the thumbnails.
- **Protect and delete images.** When viewing thumbnails or a single-page image, press the Protect button to preserve the image against accidental deletion (a key icon is overlaid over the full-page image) or the Trash button (press twice) to erase it.
- **Exit image review.** Tap the shutter release button or press the Playback button to exit image review.

Working with Calendar View

Once in calendar view, you can sort through images arranged by the date they were taken. This feature is especially useful when you're traveling and want to see only the pictures you took in, say, a particular city on a certain day.

- **Change dates.** Use the multi selector keys or main dial and sub-command dial to move through the date list. If your memory card has pictures taken on a highlighted date, they will be arrayed in a scrolling list at the right side of the screen (see Figure 2.7).

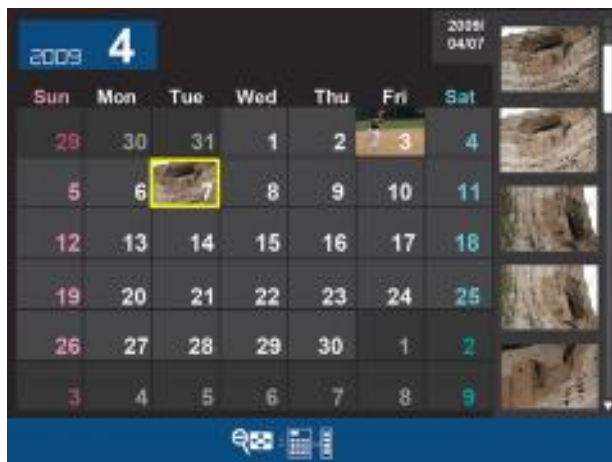


Figure 2.7
Calendar view.

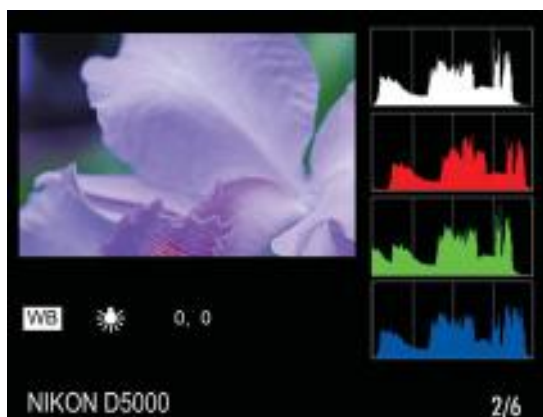
- **View a date's images.** Press the Zoom In button to toggle between the date list to the scrolling thumbnail list of images taken on that date. When viewing the thumbnail list, you can use the multi selector up/down keys to scroll through the available images.
- **Preview an image.** In the thumbnail list, when you've highlighted an image you want to look at, press the Zoom In button to see an enlarged view of that image without leaving the calendar view mode. The zoomed image replaces the date list.
- **Delete images.** Pressing the Trash button deletes a highlighted image in the thumbnail list. In the date list view, pressing the Trash button removes all the images taken on that date (use with caution!).
- **Exit calendar view.** In thumbnail view, if you highlight an image and press the OK button, you'll exit calendar view and the highlighted image will be shown on the LCD in the display mode you've chosen. (See "Working with Photo Information" to learn about the various display modes.) In date list view, pressing the Zoom In button exits calendar view and returns to 72 thumbnails view. You can also exit calendar view by tapping the shutter release or by pressing the MENU button.

Working with Photo Information

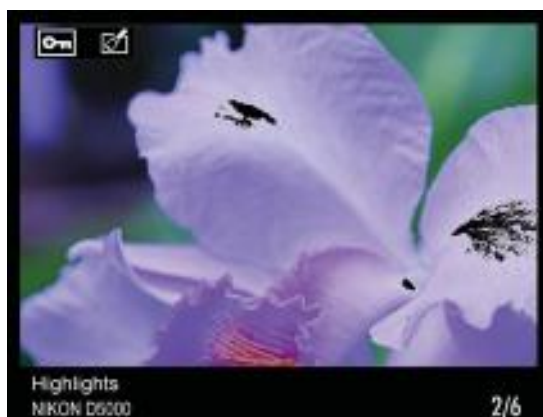
When reviewing an image on the screen, your D5000 can supplement the image itself with a variety of shooting data, ranging from basic information presented at the bottom of the LCD display, to three text overlays that detail virtually every shooting option you've selected. This section will show you the type of information available. Most of the data is self-explanatory, so the labels in the accompanying figures should tell you most of what you need to know. To change to any of these views while an image is on the screen in Playback mode, press the multi selector up/down buttons (unless you've swapped the up/down functions with the left/right functions in the Custom Setting menu). Here's the order in which the screens are displayed when you press the multi selector down button. They are shown in Figures 2.8 through 2.15.



Figure 2.8 File information screen.

**Figure 2.9**

RGB histogram. Shows the image accompanied by brightness, red, green, and blue histograms—a kind of chart that represents an image's exposure, and how the darkest areas, brightest areas, and middle tones have been captured.

**Figure 2.10**

When the Highlights display is active, any overexposed areas will be indicated by a flashing black border.

**Figure 2.11**

Shooting Data 1 tells you everything else you might want to know about a picture you've taken, including metering mode, exposure mode, exposure compensation, lens information, and all the details of any built-in or external dedicated flash units you might have used.

**Figure 2.12**

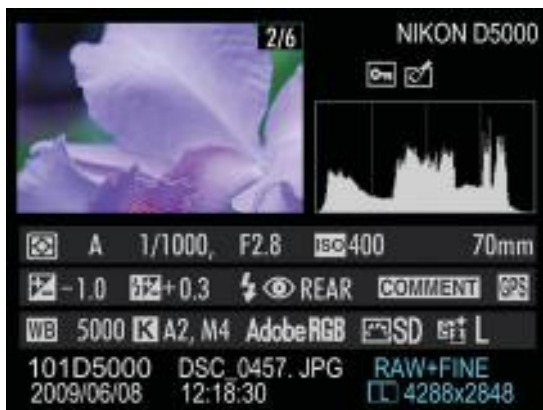
Shooting Data 2 shows white balance data and adjustments, sharpness and saturation settings, and other parameters.

**Figure 2.13**

Shooting Data 3 shows noise reduction information, Active D-Lighting, retouching effects that have been applied, and your user comments.

**Figure 2.14**

The GPS data screen appears *only* if the image was taken using the GPS device. It includes latitude, longitude, altitude, and time information.

**Figure 2.15**

Overview data screen adds more information, including metering mode, shutter speed, *f*/stop, and ISO setting.

Shooting Information Display/ Quick Settings Screen

The back-panel color LCD can be used to provide a wealth of information (the shooting information display, shown at left in Figure 2.16) and access to a number of settings (the quick settings screen, shown at right in Figure 2.16). The information edit screen can help you avoid some trips to Menuland, by making some basic adjustments available using the color LCD's speedy settings view.

To activate/deactivate the shooting information display, press the Info button on top of the camera (which just turns the display on or off), or press the information edit button on the back of the camera, near the bottom-left corner of the color LCD. (That button also allows you to *change* some of the settings.) Two versions are available: the “Classic” version, which has a clean, text-based



Figure 2.16 The shooting information display (left) shows basic information on the color LCD. The quick settings screen (right) allows you to change many settings.

format, and the “Graphic” version, which includes a smattering of graphics—particularly in Scene modes, when a representation of the mode dial appears briefly as you change modes. Use the **Auto information display** option from the Setup menu to specify which of these two versions to use. You can choose the display type for Auto/Scene modes and Advanced modes separately, while choosing a blue, black, or orange color scheme. Light-on-dark is usually easier to read in dim lighting conditions, while the reverse scheme is better under bright lighting.

When the shooting information display is shown, press the information edit button a second time to activate the shooting settings screen. Use the multi selector buttons to highlight one of the adjustments, then press the OK button to produce a screen of options for that setting.

Going Topside

The top surface of the Nikon D5000 (see Figure 2.17) has its own set of frequently accessed controls.

- **Accessory shoe.** Slide an electronic flash into this mount when you need a more powerful Speedlight. A dedicated flash unit, like the Nikon SB-400, SB-600, or SB-900, can use the multiple contact points shown to communicate exposure, zoom setting, white balance information, and other data between the flash and the camera.
- **Power switch.** Rotate this switch clockwise to turn on the Nikon D5000 (and virtually all other Nikon DSLRs).
- **Shutter release button.** Partially depress this button to lock in exposure and focus. Press all the way to take the picture. Tapping the shutter release when the camera has turned off the autoexposure and autofocus mechanisms reactivates both. When a review image is displayed on the back-panel color LCD, tapping this button removes the image from the display and reactivates the autoexposure and autofocus mechanisms.
- **Aperture/Exposure compensation/Flash exposure compensation button.** Press this button while spinning the command dial to adjust the aperture when in Manual exposure mode. Hold the button down while spinning the command dial to add or subtract exposure when using Program, Shutter-priority, or Aperture-priority modes. This facility allows you to “override” the settings the camera has made and create a picture that is lighter or darker. This is called *exposure compensation*. You can “apply” exposure compensation in Manual mode, too, but in that case the exposure isn’t really changed. The D5000 simply tells you how much extra or reduced exposure you are requesting, using the analog exposure scale display in the

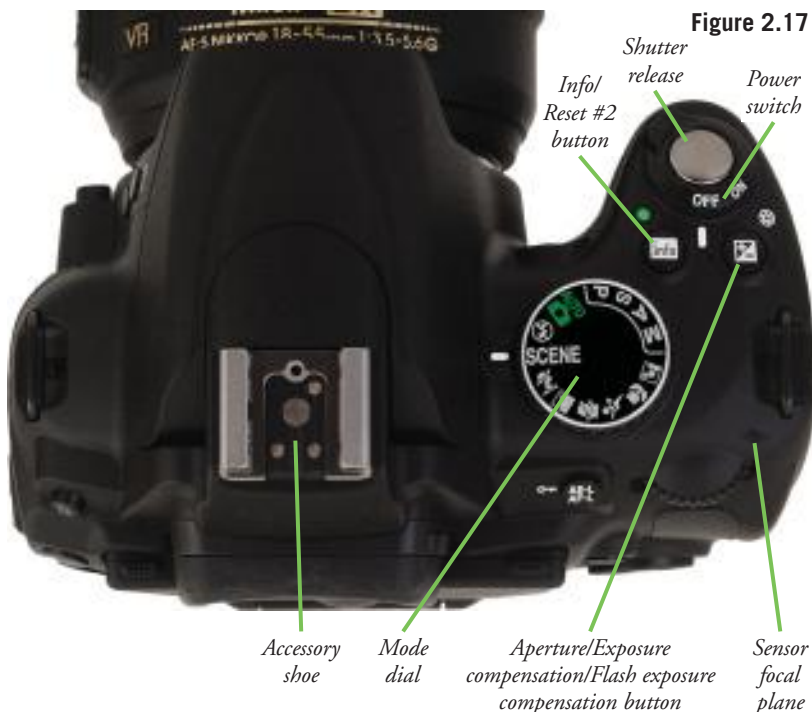


Figure 2.17

viewfinder and color LCD. When using flash, the flash exposure compensation is added or subtracted as the command dial is rotated while this button is held down.

- **Info/Reset #1 button.** Press to show/hide the information display. Hold down at the same time as the Reset #2 button (the information edit button on the back of the camera) to reset the camera's settings to the factory default values.
- **Focal plane indicator.** This indicator shows the *plane* of the sensor, for use in applications where exact measurement of the distance from the focal plane to the subject is necessary. (These are mostly scientific/close-up applications.)
- **Mode dial.** Rotate the mode dial to choose between Program, Shutter-priority, Aperture-priority, and Manual exposure modes, as well as the Auto, Auto (No Flash), Portrait, Child, Landscape, Sports, Close-up, Night Portrait, and Scene modes. Your choice will be displayed on the LCD and in the viewfinder, both described in the next sections. You can read more about the Scene modes in Chapter 1.

Lens Components

The lens shown at left in Figure 2.18 is a typical lens that might be mounted on the Nikon D5000. It is, in fact, the 18-55mm VR “kit” lens sometimes sold with the camera body. Unfortunately, this particular lens doesn’t include all the common features found on the various Nikon lenses available for your camera, so I am including a second lens (shown at right in the figure) that *does* have more features and components. It’s not a typical lens that a D5000 user might work with, however. This 17-35mm zoom is a pricey “pro” lens that costs about 1.5X as much as the entire D5000 camera. Nevertheless, it makes a good example. Components found on this pair of lenses include

- **Filter thread.** Most lenses have a thread on the front for attaching filters and other add-ons. Some, like the 18-55 VR kit lens, also use this thread for attaching a lens hood (you screw on the filter first, and then attach the hood to the screw thread on the front of the filter). Some lenses, such as the



Figure 2.18

AF-S Nikkor 14-24mm *f*/2.8G ED lens, have no front filter thread, because their front elements are too curved to allow mounting a filter and/or because the front element is so large that huge filters would be prohibitively expensive. Some front-filter-hostile lenses allow using smaller filters that drop into a slot at the back of the lens.

- **Lens hood bayonet.** Lenses like the 17-35mm zoom shown in the figure use this bayonet to mount the lens hood. Such lenses generally will have a dot on the edge showing how to align the lens hood with the bayonet mount.
- **Focus ring.** This is the ring you turn when you manually focus the lens, or fine-tune autofocus adjustment. It's a narrow ring at the very front of the lens (on the 18-55mm kit lens), or a wider ring located somewhere else.
- **Focus scale.** This is a readout found on many lenses that rotates in unison with the lens's focus mechanism to show the distance at which the lens has been focused. It's a useful indicator for double-checking autofocus, roughly evaluating depth-of-field, and for setting manual focus guesstimates.
- **Zoom setting.** These markings on the lens show the current focal length selected.
- **Zoom ring.** Turn this ring to change the zoom setting.
- **Autofocus/Manual switch.** Allows you to change from Automatic focus to Manual focus.
- **Aperture ring.** Some lenses have a ring that allows you to set a specific *f*/stop manually, rather than use the camera's internal electronic aperture control. An aperture ring is useful when a lens is mounted on a non-automatic extension ring, bellows, or other accessory that doesn't couple electronically with the camera. Aperture rings also allow using a lens on an older camera that lacks electronic control. In recent years, Nikon has been replacing lenses that have aperture rings with versions that only allow setting the aperture with camera controls.
- **Aperture lock.** If you want your D5000 (or other Nikon dSLR) to control the aperture electronically, on lenses with an aperture ring you must set the lens to its smallest aperture (usually *f*/22 or *f*/32) and lock it with this control.
- **Focus limit switch.** Some lenses have a switch (not shown) that limits the focus range of the lens, thus potentially reducing focus seeking when shooting distant subjects. The limiter stops the lens from trying to focus at closer distances (in this case, closer than 2.5 meters).

- **Vibration reduction switch.** Lenses with Nikon's Vibration Reduction (VR) feature include a switch for turning the stabilization feature on and off, and, in some cases, for changing from normal vibration reduction to a more aggressive "active" VR mode useful for, say, shooting from moving vehicles.

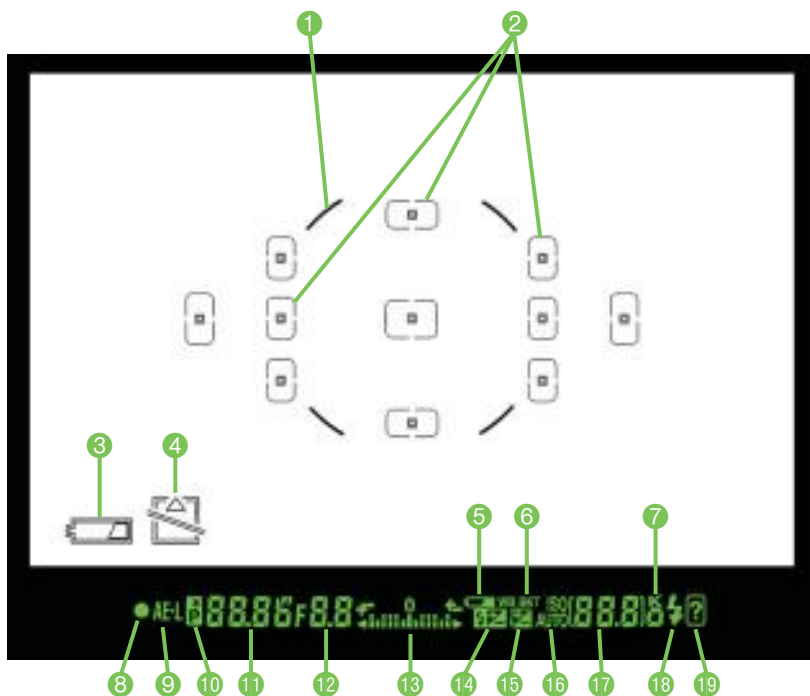
The back end of a lens intended for use on a Nikon camera has other components that you seldom see (except when you swap lenses), but still should know about:

- **Lens bayonet mount.** This is the mounting mechanism that attaches to a matching mount on the camera. Although the lens bayonet is usually metal, some lenses use a rugged plastic for this key component.
- **Automatic diaphragm lever.** This lever is moved by a matching lever in the camera to adjust the *f/stop* from wide open (which makes for the brightest view) to the *taking aperture*, which is the *f/stop* that will be used to take the picture. The actual taking aperture is determined by the camera's metering system (or by you when the D5000 is in Manual mode), and is communicated to the lens through the electronic contacts described next. (An exception is when the aperture ring on the lens itself is unlocked and used to specify the *f/stop*.) However, the spring-loaded physical levers are what actually push the aperture to the selected *f/stop*.
- **Electronic contacts.** These metal contacts pass information to matching contacts in the camera body allowing a firm electrical connection so that exposure, distance, and other information can be exchanged between the camera and lens.

Looking Inside the Viewfinder

Much of the important shooting status information is shown inside the viewfinder of the Nikon D5000. Not all of this information will be shown at any one time. Figure 2.19 shows what you can expect to see. These readouts include

- **Focus points.** Can display the 11 areas used by the D5000 to focus. The camera can select the appropriate focus zone for you, or you can manually select one or all of the zones, as described in Chapters 1.
- **Active focus point.** The currently selected focus point can be highlighted with red illumination, depending on focus mode.
- **Battery indicator.** Appears when the D5000's battery becomes depleted.



- 1 Focus points
- 2 Center-weighted circle
- 3 Battery
- 4 No card warnings
- 5 Battery status
- 6 White balance bracketing
- 7 Thousands of exposures remaining
- 8 Focus confirmation indicator
- 9 Autoexposure lock indicator
- 10 Flexible program indicator
- 11 Shutter speed
- 12 Aperture
- 13 Analog exposure display/Exposure compensation value
- 14 Flash exposure
- 15 Exposure compensation indicators
- 16 ISO
- 17 Number of exposures remaining/Memory buffer shots/White balance recording/Exposure compensation value/Flash compensation value/Capture mode
- 18 Flash-ready
- 19 Warning indicator

Figure 2.19

- **Focus confirmation indicator.** This green dot stops blinking when the subject covered by the active autofocus zone is in sharp focus, whether focus was achieved by the AF system, or by you using manual focusing.
- **Autoexposure lock.** Shows that exposure has been locked.
- **Shutter speed.** Displays the current shutter speed selected by the camera, or by you in Manual exposure mode.
- **Aperture.** Shows the current aperture chosen by the D5000's autoexposure system, or specified by you when using Manual exposure mode.
- **Automatic ISO indicator.** Shown as a reminder that the D5000 has been set to adjust ISO sensitivity automatically. It flashes when the exposure meters are active as a warning to you that the camera may be adjusting the ISO setting.
- **Electronic analog exposure display.** This scale shows the current exposure level, with the bottom indicator centered when the exposure is correct as metered. The indicator may also move to the left or right to indicate over- or underexposure (respectively). The scale is also used to show the amount of exposure compensation dialed in.
- **Flash compensation indicator.** Appears when flash EV changes have been made.
- **Exposure compensation indicator.** This is shown when exposure compensation (EV) changes have been made. It's easy to forget you've dialed in a little more or less exposure, and then shoot a whole series of pictures of a different scene that doesn't require such compensation. Beware!
- **Flash-ready indicator.** This icon appears when the flash is fully charged.
- **Exposures remaining/maximum burst available.** Normally displays the number of exposures remaining on your memory card, but while shooting it changes to show a number that indicates the number of frames that can be taken in Continuous shooting mode using the current settings. This indicator also shows other information, such as exposure/flash compensation values, and whether the D5000 is connected to a PC through a USB cable.

Underneath Your Nikon D5000

There's not a lot going on with the bottom panel of your Nikon D5000. You'll find the battery compartment access door and a tripod socket, which secures the camera to a tripod. The socket accepts other accessories, such as flash brackets and quick release plates that allow rapid attaching and detaching of the D5000 from a matching platform affixed to your tripod.

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Chapter 3

Playback and Shooting Menu Settings

The Playback and Shooting menus determine how the D5000 displays images on review, and how it uses many of its shooting features to take a photo. You'll find the Custom, Setup, Retouch, and My Menu/Recent Settings options in Chapter 4.

Anatomy of the Nikon D5000's Menus

Press the MENU button, located second from the top on the left side of the LCD, to access the menu system. The most recently accessed menu will appear.

- **Top-level menus.** The left-hand column includes an icon and color coding representing each of the top-level menu screens. From the top, they are Playback (right-pointing triangle icon, blue coding), Shooting (camera icon, green coding), Custom Setting (pencil icon, red coding), Setup (wrench, orange coding), and Retouch (paintbrush, purple coding), and either an icon representing Recent Settings or My Menu (gray coding), depending on which tab you've selected for that slot. (The My Menu icon is like the Recent Settings icon shown in the figure, but with a check mark.) At the bottom of the column is a question mark icon representing Help access.
- **Menu functions.** The center column includes the name representing the function of each choice in the currently selected menu.
- **Current settings.** The right-hand column has an icon or text that shows either the current setting for that menu item or text or an icon that represents the function of that menu entry.

Navigating among the various menus is easy and follows a consistent set of rules.

- **Press MENU to start.** Press the MENU button to display the main menu screens.

- **Navigate with the multi selector pad.** The multi selector pad, located to the right of the LCD, has indents at the up/down/left/right positions. Press these “buttons” to navigate among the menu selections. Press the left button to move highlighting to the left column; then press the up/down buttons to scroll up or down among the five top-level menus.
- **Highlighting indicates active choice.** As you use the multi selector’s right button to move into the column containing that menu’s choices, you can then press the up/down buttons to scroll among the individual entries. If more than one screen full of choices is available, a scroll bar appears at the far right of the screen, with a position slider showing the relative position of the currently highlighted entry.
- **Select a menu item.** To work with a highlighted menu entry, press the OK button in the center of the multi selector or just press the right button on the multi selector. Any additional screens of choices will appear. You can move among them using the same multi selector movements.
- **Choose your menu option.** You can confirm a selection by pressing the OK button or, frequently, by pressing the right button on the multi selector once again. Some functions require scrolling to a **Done** menu choice, or include an instruction to **Set** a choice using some other button.
- **Leaving the menu system.** Pressing the multi selector left button usually backs you out of the current screen, and pressing the MENU button again usually does the same thing. You can exit the menu system at any time by tapping the shutter release button. If you haven’t confirmed your choice for a particular option, no changes will be made.
- **Quick return.** The Nikon D5000 “remembers” the top-level menu and specific menu entry you were using (but not any submenus) the last time the menu system was accessed (even if you have subsequently turned off the camera), and returns there.

Playback Menu Options

The blue-coded Playback menu has seven entries used to select options related to the display, review, and printing of the photos you’ve taken. (See Figure 3.1.)

- Delete
- Rotate tall
- Playback folder
- Slide show
- Display mode
- Print set (DPOF)
- Image review

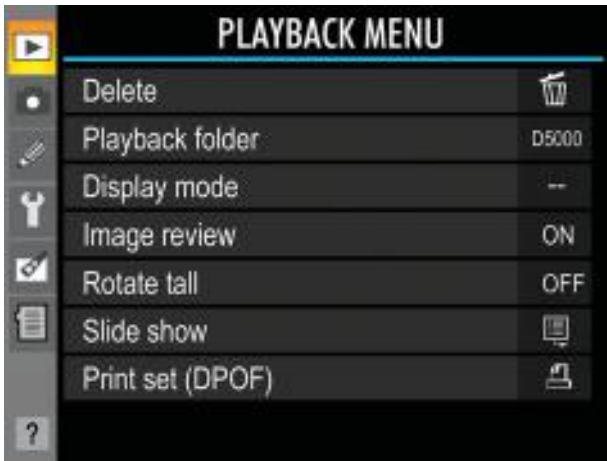


Figure 3.1
Playback menu.

Delete

Options: Selected, Select date, and All

Selected: You'll see an image selection screen like the one shown in Figure 3.2. Then, follow these instructions:

1. **Review thumbnails.** Use the multi selector left/right and up/down buttons to scroll among the available images.
2. **Examine image.** When you highlight an image you think you might want to delete, press the Zoom In button to temporarily enlarge that image so you can evaluate it further. When you release the button, the selection screen returns.
3. **Mark/unmark images.** To mark an image for deletion, press the Zoom Out button (*not* the Trash button). A trash can icon will appear overlaid on that image's thumbnail. To unmark an image, press the Zoom Out button again. Images marked with Protect cannot be selected for deletion. (See Figure 3.2.)
4. **Remove images.** When you've finished marking images to delete, press OK. A final screen will appear asking you to confirm the removal of the image(s). Choose **Yes** to delete the image(s) or **No** to cancel deletion, and then press OK. If you selected **Yes**, then you'll return to the Playback menu; if you chose **No**, you'll be taken back to the selection screen to mark/unmark images.
5. To back out of the selection screen, press the MENU button.

**Figure 3.2**

Images selected for deletion are marked with a trash can icon.

Select Date: Highlight any of the available dates that have pictures, and press the multi selector right button to add a check mark to that date. Press the Zoom Out button to view/confirm that the images for the date you've marked are those you want to delete, and press the button again to return to the **Select date** screen. When you're finished choosing dates, press OK to delete the images from the confirmation screen.

All: This removes all the “unprotected” images from your memory card. Keep in mind that **Format** is a faster way to remove images, but, unlike **All**, deletes those marked as Protected as well.

Playback Folder

Options: Current, All

Images created by your Nikon D5000 are deposited into folders on your memory card. These folders have names like 100D5000 or 101D5000, but you can change those default names to something else using the **Folders** option in the Setup menu, described in the next chapter.

With a freshly formatted memory card (formatting is covered under the Setup menu), the D5000 starts with a default name: 100D5000. When that folder fills with the maximum of 999 images, the camera automatically creates a new folder numbered one higher, such as 101D5000. If you use the same memory card in another camera, that camera will also create its own folder (say, 102NCD5000 for a Nikon D5000). Thus you can end up with several folders on the same memory card, at least one for each camera the card is used in, until you eventually reformat the card and folder creation starts anew. Later in this chapter, in

the section on the Shooting menu, I'll show you how to create folders with names you select yourself with the **Active folder** menu entry.

This menu item allows you to choose which folders are accessed when displaying images using the D5000's Playback facility. Your choices are as follows:

- **Current.** The D5000 will display only images in the current folder, as specified in the Setup menu (described later in this chapter). For example, if you have been shooting heavily at an event and have already accumulated more than 999 shots and the D5000 has created a new folder for the overflow, you'd use this setting to view only the most recent photos, which reside in that new current folder. You can change the current folder to any other specific folder on your memory card using the **Active folder** option in the Shooting menu, described in the next chapter.
- **All.** All folders containing images that the D5000 can read will be accessed, regardless of which camera created them. You might want to use this setting if you swap memory cards among several cameras and want to be able to review all the photos. You will be able to view images even if they were created by a non-Nikon camera *if* those images conform to a specification called the Design Rule for Camera File systems (DCF).

Display Mode

Options: Highlights, RGB histogram, Data

This menu item helps you reduce/increase the color LCD clutter on playback by specifying which information and screens will be available. To activate or deactivate an info option, scroll to that option and press the right multi selector button to add a check mark to the box next to that item. Press the right button to unmark an item that has previously been checked. Important: when you're finished, you must scroll up to **Done** and press OK or the right multi selector button to confirm your choices. Exiting the Display mode menu any other way will cause any changes you may have made to be ignored. Your info options include:

- **Highlights.** When enabled, overexposed highlight areas in your image will blink with a black border during picture review. That's your cue to consider using exposure compensation to reduce exposure, unless a minus-EV setting will cause loss of shadow detail that you want to preserve.
- **RGB histogram.** Displays both luminance (brightness) and RGB histograms on a screen that can be displayed using the up/down multi selector buttons. When unmarked, this histogram screen is disabled, and only the **Overview data** screen, with the Brightness histogram, is displayed.
- **Data.** Activates/deactivates the three Shooting Data pages shown in Chapter 2.

Image Review

Options: On (default), Off

While instant review is useful, sometimes it's a better idea to *not* automatically review your shots in order to conserve battery power, speed up, or simplify operations. This menu operation allows you to choose which mode to use:

- **On.** Image review is automatic after every shot is taken.
- **Off.** Images are displayed only when you press the Playback button.

Rotate Tall

Options: On (default), Off

The D5000's internal directional sensor can detect whether the camera was rotated when the photo was taken and embed this information in the image file itself. It can be used by the D5000 to automatically rotate images when they are displayed on the camera's LCD monitor (providing a smaller image), or you can ignore the data and let the images display in non-rotated fashion (so you have to rotate the camera to view them in their larger, full-screen orientation). Your image-editing application can also use the embedded file data to automatically rotate images on your computer screen.

This works *only* if you've told the D5000 to place orientation information in the image file so it can be retrieved when the image is displayed. You must set **Auto image rotation** to **On** in the Setup menu, as described in Chapter 4. Then, both your D5000 and your image editor can rotate the images for you as the files are displayed.

This menu choice deals only with whether the image should be rotated when displayed on the *camera LCD monitor*. When **Rotate tall** is turned **Off**, the Nikon D5000 does not rotate pictures taken in vertical orientation. The image is large on your LCD screen, but you must rotate the camera to view it upright. When **Rotate tall** is turned **On**, the D5000 rotates pictures taken in vertical orientation on the LCD screen so you don't have to turn the camera to view them comfortably. However, this orientation also means that the longest dimension of the image is shown using the shortest dimension of the LCD, so the picture is reduced in size.

Slide Show

Options: Start, Frame interval

The D5000's **Slide show** feature is a convenient way to review images in the current playback folder one after another, without the need to manually switch between them. It's faster to set up and use than **Pictmotion**, but doesn't have much in the way of options.

To activate a slide show, just choose **Start** from this entry in the Playback menu. If you like, you can choose **Frame interval** before commencing the show in order to select an interval of 2, 3, 5, or 10 seconds between "slides." During playback, you can press the OK button to pause the "slide show" (in case you want to examine an image more closely). When the show is paused, a menu pops up, as shown in Figure 3.3, with choices to restart the show (by pressing the OK button again); change the interval between frames; or to exit the show entirely.

As the images are displayed, press the up/down multi selector buttons to change the amount of information presented on the screen with each image. Press the left/right multi selector buttons to move back to a previous frame or jump ahead to the next one. Press the MENU button to exit the slide show and return to the menu, or the Playback button to exit the menu system totally. While reviewing images, you can tap the MENU button to exit the show and return to the menus, or tap the shutter release button if you want to remove everything from the screen and return to shooting mode. At the end of the slide show, as when you've paused it, you'll be offered the choice of restarting the sequence, changing the frame interval, or exiting the slide show feature completely.



Figure 3.3

Press the OK button to pause the slide show, change the interval between slides, or to exit the presentation.

Print Set (DPOF)

Options: Select/set, Deselect all

You can print directly from your camera to a printer compatible with a specification called *PictBridge*. You can mark images in the camera, and then remove your memory card and hand it to your retailer for printing in their lab or in-store printing machine, or insert the card into a standalone picture kiosk and make prints yourself. This menu lets you specify which photos you want printed, and how many copies you'd like of each picture. If you're taking photos in PSAM modes with the expectation of printing them through a direct USB connection, set **Color space** to **sRGB** for best results.

When you choose this menu item, you're presented with a set of screens that looks very much like the **Delete** photos screens described earlier, only you're selecting pictures for printing rather than deleting. The first screen you see when you choose **Print set (DPOF)** asks if you'd like to **Select/set** pictures for printing, or **Deselect all?** images that have already been marked. Choose **Select/set** to choose photos and specify how many prints of each you'd like (see Figure 3.4). Choose **Deselect all?** to cancel any existing print order and start over.

1. **View images on your card.** Use the multi selector keys to scroll among the available images.
2. **Evaluate specific photos.** When you highlight an image you might want to print, press the Zoom In button to temporarily enlarge that image so you can evaluate it further. When you release the button, the selection screen returns.



Figure 3.4
Select images for printing.

3. **Mark images for printing and specify number of copies.** To mark a highlighted image for printing, hold the Zoom Out button and press the multi selector up/down buttons to choose the number of prints you want, up to 99 per image. The up button increases the number of prints; the down button decreases the amount. A printer icon and the number specified will appear overlaid on that image's thumbnail.
4. **Unmark images if you change your mind.** To unmark an image for printing, highlight and press the Zoom Out button and multi selector down button until the number of prints reaches zero. The printer icon will vanish.
5. **Finish selecting and marking images.** When you've finished marking images to print, press OK.
6. **Specify date or shooting information on the print.** A final screen will appear in which you can request a **Data imprint** (shutter speed and aperture) or **Imprint date** (the date the photos were taken). Use the up/down buttons to select one or both of these options, if desired, and press the left/right buttons to mark or unmark the check boxes. When a box is marked, the imprint information for that option will be included on *all* prints in the print order.
7. **Exit the Print Set screens.** Scroll up to **Done** when finished, and press OK or the right cursor button.

Shooting Menu Options

These 15 settings are likely to be the most common settings changes you make. The first eight choices are shown in Figure 3.5.

- | | |
|----------------------------|---------------------------------|
| ■ Scene mode | ■ Auto distortion control |
| ■ Set Picture Control | ■ Color space |
| ■ Manage Picture Control | ■ Long exposure noise reduction |
| ■ Image quality | ■ High ISO noise reduction |
| ■ Image size | ■ Active folder |
| ■ White balance | ■ Movie settings |
| ■ ISO sensitivity settings | ■ Interval timer shooting |
| ■ Active D-Lighting | |



Figure 3.5
This is the first page of the Shooting menu.

Scene Mode

Options: 13 Scene modes

This menu item is available only when the mode dial is set to the SCENE position. It produces a list of the 13 different additional Scene modes I first described in Chapter 1. When the mode dial is set to any other position, the **Scene mode** menu entry is grayed out and unavailable. When this menu entry *is* shown, certain other settings in the Shooting menu are unavailable and grayed out, including **Set Picture Control**, **White balance**, and **Active D-Lighting**. The SCENE position also disables options in the Custom menus, such as the **Beep**, **Built-in AF assist illuminator**, **Flash Control**, and **Bracketing** choices.

The Scene modes you can select in this menu include: **Night Landscape**, **Party/Indoor**, **Beach/Snow**, **Sunset**, **Dusk/Dawn**, **Pet Portrait**, **Candlelight**, **Blossom**, **Autumn Colors**, **Food**, **Silhouette**, **High key**, and **Low key**.

Set Picture Control

Options: Standard, Neutral, Vivid, Monochrome, Portrait, Landscape, plus nine user-definable styles

Nikon provides six predefined styles (**Standard**, **Neutral**, **Vivid**, **Monochrome**, **Portrait**, and **Landscape**). However, you can *edit* the settings of any of those styles (but not rename them) so they better suit your taste. The D5000 also offers *nine* user-definable Picture Control styles that you can edit to your heart's content and assign descriptive names. You can *copy* these styles to a memory card, edit them on your computer, and reload them into your camera at any time. So,

effectively, you can have a lot more than nine custom Picture Control styles available: the nine in your camera, as well as a virtually unlimited library of user-defined styles that you have stored on memory cards.

Nikon insists that these styles have been standardized to the extent that if you re-use a style created for one camera (say, your D5000) and load it into a different compatible camera (such as a Nikon D3s), you'll get substantially the same rendition, so you can reproduce a film "style" like Fujifilm Velvia or use a style created by anyone else that you download from the internet.

Using and managing Picture Control styles is accomplished using two different menu entries, **Set Picture Control**, which allows you to choose an existing style and to edit the predefined styles that Nikon provides, and **Manage Picture Control**, which gives you the capability of creating and editing user-defined styles.

Choosing a Picture Control Style

In **Set Picture Control**, choose from one of the predefined styles (**Standard**, **Neutral**, **Vivid**, or **Monochrome**) or user styles (numbered **C-1** to **C-9**). Picture Controls can be used only in PSAM modes. You can't create a new Picture Control here. Then follow these steps:

1. Choose **Set Picture Control** from the Shooting menu. (See Figure 3.6.) Picture Controls that have been modified from their standard settings have an asterisk next to their name.

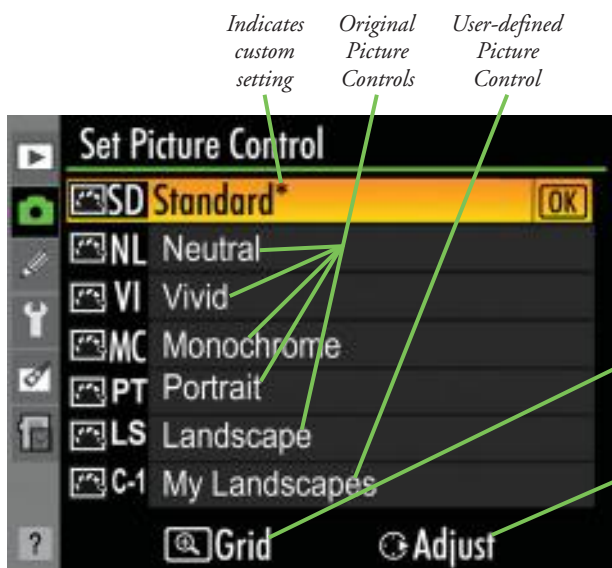


Figure 3.6

You can choose from the six predefined Picture Controls, or select a user-defined style, such as *C-1 My Landscapes* shown here.

Press Thumbnail/Zoom Out to view grid

Press multi selector right button to adjust highlighted style

2. Scroll down to the Picture Control you'd like to use.
3. Press OK to activate the highlighted style.
4. Press the MENU button or tap the shutter release to exit the menu system.

Editing a Picture Control Style

You can change the parameters of any of Nikon's predefined Picture Controls, or any of the nine user-defined styles you create. To make quick adjustments to any Picture Control except the **Monochrome** style, follow these steps:

1. Choose **Set Picture Control** from the Shooting menu and scroll down to the Picture Control you'd like to edit.
2. Press the multi selector right button to produce the adjustment screen shown in Figure 3.7.
3. You can use the quick adjust slider to exaggerate the attributes of the **Standard**, **Vivid**, **Portrait**, or **Landscape** styles (only).
4. Scroll down to the **Sharpening**, **Contrast**, **Brightness**, **Saturation**, and **Hue** sliders with the multi selector up/down buttons, then use the left/right buttons to decrease or increase the effects. A line will appear under the original setting in the slider whenever you've made a change from the defaults.
5. Instead of making changes with the slider's scale, you can move the cursor to the far left and choose A (for auto) instead when working with the **Sharpening**, **Contrast**, and **Saturation** sliders. The D5000 will adjust these parameters automatically, depending on the type of scene it detects.
6. Press the Trash button to reset the values to their defaults.



Figure 3.7

Sliders can be used to make quick adjustments to your Picture Control styles.

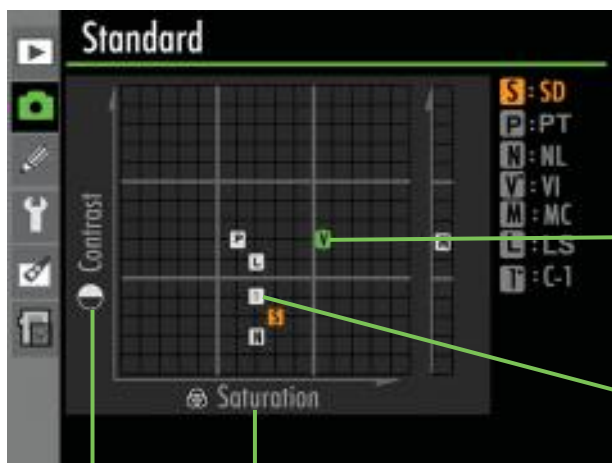
7. Press the Thumbnail/Zoom Out button to view an adjustment grid (discussed next).
8. Press OK when you're finished making adjustments.

Editing the **Monochrome** style is similar, except that the parameters are **Sharpening**, **Contrast**, **Brightness**, **Filter effects** (Yellow, Orange, Red, Green, or none) as well as toning effects (black-and-white, plus seven levels of Sepia, Cyanotype, Red, Yellow, Green, Blue Green, Blue, Purple Blue, and Red Purple). (Keep in mind that once you've taken a JPEG photo using a **Monochrome** style, you can't convert the image back to full color. Shoot using RAW+JPEG, and you'll get a monochrome JPEG, plus the RAW file that retains all the color information.) Filter effects produce a grayscale image that looks as if it were shot with black-and-white film using a color filter on the lens (no color tone is produced). (See Figure 3.8, left.) Toning effects give you a tinted monochrome filter in various colors. (Figure 3.8, right.)

When you press the Thumbnail/Zoom Out button, a grid display, like the one shown in Figure 3.9, appears showing the relative contrast and saturation of each of the predefined Picture Controls. If you've created your own custom Picture



Figure 3.8 Filter effects (left) produce grayscale images with varying tonal renditions; Toning effects (right) create tinted monochrome images.

**Figure 3.9**

This grid shows the relationship of the Picture Controls being used.

Picture Control using Auto contrast or saturation

User-defined Picture Control

Amount of contrast

Amount of saturation

Controls, they will appear on this grid, too, represented by the numbers 1-9. Because the values for autocontrast and autosaturation may vary, the icons for any Picture Control that uses the Auto feature will be shown on the grid in green, with lines extending up and down from the icon to tip you off that the position within the coordinates may vary from the one shown.

Manage Picture Control

Options: Save/edit, Rename, Delete, Load/save

The **Manage Picture Control** menu entry can be used to create new styles, edit existing styles, rename or delete them, and store/retrieve them from the memory card. Here are the basic functions of this menu item, which can be found on the Shooting menu directly below the **Set Picture Control** entry:

- **Make a copy.** Choose **Save/edit**, select from the list of available Picture Controls, and press OK to store that style in one of the user-defined slots C-1 to C-9, as shown in Figure 3.10.
- **Save an edited copy.** Choose **Save/edit**, select from the list of available Picture Controls, and then press the multi selector right button to edit the style, as described in the previous section. Press OK when finished editing, and then save the modified style in one of the user-defined slots C-1 to C-9.

- **Rename a style.** Choose **Rename**, select from the list of user-defined Picture Controls (you cannot rename the default styles), and then enter the text used as the new label for the style, using the standard D5000 text entry screen explained next and shown in Figure 3.11. You may use up to 19 characters for the name.
- **Remove a style.** Select **Delete**, choose from the list of user-defined Picture Controls (you can't remove one of the default styles), press the multi selector right button, then highlight **Yes** in the screen that follows and press OK to remove that Picture Control.
- **Store/retrieve style on card.** Choose **Load/save**, then select **Copy to camera** to locate a Picture Control on your memory card and copy it to the D5000; **Delete from card** to select a Picture Control on your memory card and remove it; or **Copy to card** to duplicate a style currently in your camera onto the memory card. This last option allows you to create and save Picture Controls in excess of the nine that can be loaded into the camera at one time. Once you've copied a style to your memory card, you can modify the version in the camera, give it a new name, and, in effect, create a whole new Picture Control.

Entering Text on the Nikon D5000

The Nikon D5000 uses a fairly standardized text entry screen to name Picture Controls, create new folder names, and enter image comments and other text. The screen looks like the one shown in Figure 3.11, with some variations (for example, some functions have a less diverse character set, or offer more or fewer spaces for your entries). To name a Picture Control, just use the multi selector



Figure 3.10

Picture Controls that you define can be stored in your D5000's settings.



Figure 3.11
Use the D5000's
text entry screen
to label your
Picture Controls.

navigational buttons to scroll around within the array of alphanumerics, as shown in Figure 3.11. Then, enter your text:

- **Highlight a character.** Use the multi selector keys to scroll around within the array of characters.
- **Insert highlighted character.** Press the Zoom In button to insert the highlighted character. The cursor will move one place to the right to accept the next character.
- **Non-destructively backspace.** Hold down the Thumbnail/Zoom Out button and use the left/right buttons to move the cursor within the line of characters you've entered. This allows you to backspace and replace a character without disturbing the others you've entered.
- **Erase a highlighted character.** To remove a character you've already input, move the cursor to highlight that character, and then press the Trash button.
- **Confirm your entry.** When you're finished entering text, press the OK button to confirm your entry, then press the left button twice to return to the Shooting menu, or just tap the shutter release to exit the menu system entirely.

Image Quality

As I noted in Chapter 2, you can choose the image quality settings used by the D5000 to store its files. You can use either the quick settings screen, as described in Chapter 2, or you can also use this menu option, if you prefer. There is no

real advantage to using this menu instead of the information edit screen. Here, you have two choices to make:

- **Level of JPEG compression.** To reduce the size of your image files and allow more photos to be stored on a given memory card, the D5000 uses JPEG compression to squeeze the images down to a smaller size. This compacting reduces the image quality a little, so you're offered your choice of **Fine** (a 1:4 reduction), **Normal** (1:8 reduction), and **Basic** (1:16) compression.
- **JPEG, RAW, or both.** You can elect to store only JPEG versions of the images you shoot, or you can save your photos as RAW images, which Nikon calls NEF, for Nikon Electronic Format files. RAW images consume more than twice as much space on your memory card. Or, you can store both RAW and a JPEG Basic file at once as you shoot. Many photographers elect to save *both* JPEG and a RAW, so they'll have a JPEG Basic version that might be usable as-is, as well as the original "digital negative" RAW file in case they want to do some processing of the image later. You'll end up with two different versions of the same file: one with a .jpg extension, and one with the .nef extension that signifies a Nikon RAW file.

To choose the combination you want, access the Shooting menu, scroll to **Image quality**, and select it by pressing OK or the multi selector right button. Scroll to highlight the setting you want, and either press OK or push the multi selector right button to confirm your selection (see Figure 3.12). In practice, you'll probably use the JPEG Fine or NEF (RAW)+JPEG Fine selections most often.

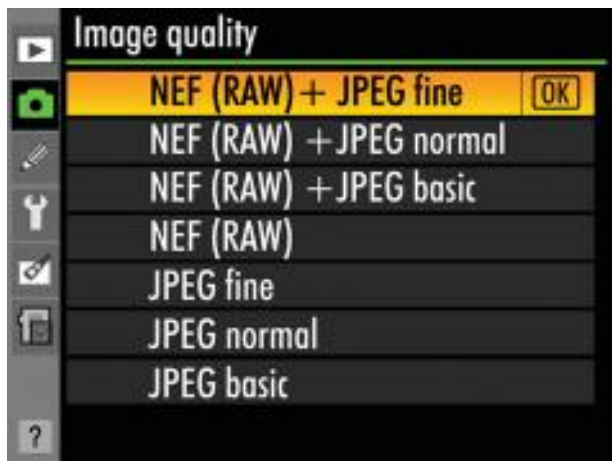


Figure 3.12

Choose from seven different combinations of RAW, JPEG, and RAW+JPEG formats.

Image Size

Options: Large, Medium, Small

Image size lets you select the resolution, or number of pixels captured as you shoot with your Nikon D5000. Your choices range from **Large** ($4,288 \times 2,848$, 12 megapixels), **Medium** ($3,216 \times 2,136$, 6.8 megapixels), and **Small** ($2,144 \times 1,424$, 3 megapixels). There are no additional options available from the **Image size** menu screen. Keep in mind that if you choose NEF (RAW) or NEF (RAW)+JPEG Basic, only the **Large** image size can be selected. The other size options are grayed out and unavailable.

White Balance

Options: Incandescent, Fluorescent, Direct sunlight, Flash, Cloudy, Shade, Choose color temperature, PRE Preset manual

The Shooting menu's **White balance** settings are considerably more flexible than those available from the quick settings screen. The button lets you choose one of six predefined settings, plus **Auto** and **PRE** (which is a user-definable white balance you can base on the lighting in a scene of your choice). The White Balance menu, on the other hand, gives you the additional option of fine-tuning the white balance precisely.

This menu entry allows you to choose one of the white balance values from among **Auto**, **Incandescent**, seven varieties of **Fluorescent** illumination, **Direct sunlight**, **Flash**, **Cloudy**, **Shade**, a specific color temperature of your choice, or a preset value taken from an existing photograph or a measurement you make.

When you select the **White balance** entry on the Shooting menu, you'll see an array of choices like those shown in Figure 3.13. Choose the predefined value you want by pressing the multi selector right button, or press OK.

If you choose **Fluorescent**, you'll be taken to another screen that presents seven different types of lamps, from **Sodium-vapor** through **Warm-white fluorescent** down to **High-temperature mercury vapor**. If you know the exact type of non-incandescent lighting being used, you can select it, or settle on a likely compromise (probably **Cool-white**, or shoot RAW and change the color balance when you import the image to your image editor). Press the multi selector right button again or press OK to select the fluorescent lamp variation you want to use. Select **Preset Manual** to record or recall custom white balance settings suitable for environments with unusual lighting or mixed lighting, as described later in this section.

When you've finished choosing a fluorescent light source *and for all other predefined values* (**Auto**, **Incandescent**, **Direct sunlight**, **Flash**, **Cloudy**, or **Shade**), you'll next be taken to the fine-tuning screen shown in Figure 3.14 (and which uses the incandescent setting as an example). The screen shows a grid with two axes, a blue/amber axis extending left/right, and a green/magenta axis extending up and down the grid. By default, the grid's cursor is positioned in the middle, and a readout to the right of the grid shows the cursor's coordinates on the A-B axis (yes, I know the display has the end points reversed) and G-M axis at 0,0.

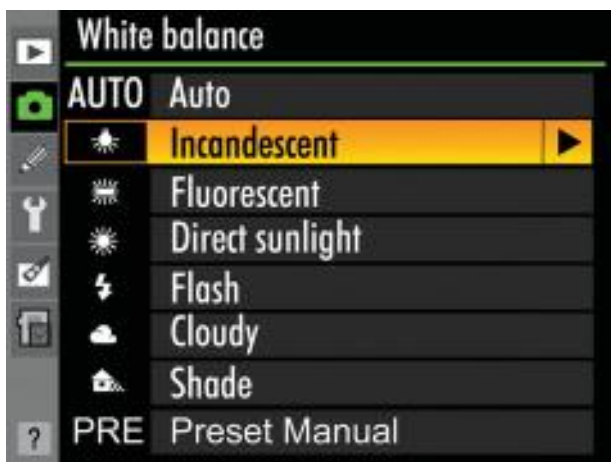


Figure 3.13

The White balance menu has predefined values, plus the option of setting a preset you measure yourself.

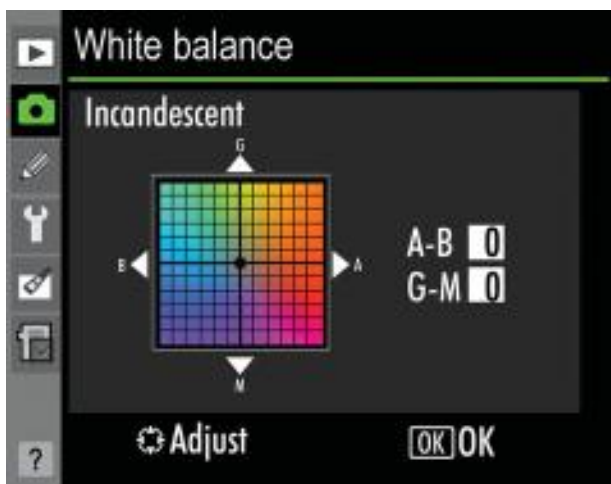


Figure 3.14

Specific white balance settings can be fine-tuned by changing their bias in the amber/blue, magenta/green directions—or along both axes simultaneously.

You can use the multi selector's up/down and right/left buttons to move the cursor to any coordinate in the grid, thereby biasing the white balance in the direction(s) you choose. The amber/blue axis makes the image warmer or colder (but not actually yellow or blue). Similarly, the green/magenta axis preserves all the colors in the original image, but gives them a tinge biased toward green or magenta. When you've fine-tuned white balance, an asterisk appears next to the white balance icon in both the Shooting menu and shooting information screen shown on the LCD, as a tip-off that this tweaking has taken place.

Using Preset Manual White Balance

If automatic white balance or one of the predefined settings available aren't suitable, you can set a custom white balance using the **Preset Manual** menu option. You can apply the white balance from a scene, either by shooting a new picture on the spot and using the resulting white balance (**Measure**) or using an image you have already shot (**Use photo**). To perform direct measurement from your current scene using a reference object (preferably a neutral gray or white object), follow these steps:

1. Place the neutral reference under the lighting you want to measure.
2. Choose **Preset Manual** from the **White balance** screen in the Shooting menu (you may need to scroll down to see it).
3. Select **Measure** from the screen that appears by scrolling to it and pressing the multi selector right button or pressing OK.
4. A warning message appears, **Overwrite existing preset data?** Choose **Yes**.
5. An instructional message appears for a few seconds telling you to take a photo of a white or gray object that fills the viewfinder under the lighting that will be used for shooting. Do that!
6. After you've taken the photo, if the D5000 was able to capture the white balance data, a message **Data acquired** appears on the shooting information screen, and the **PRE** white balance setting is shown. If the D5000 was not able to capture white balance data, a pop-up message appears, and you should try again.

The preset value you've captured will remain in the D5000's memory until you replace that white balance with a new captured value. You can also use the white balance information from a picture you've already taken, using the **Use photo** option, as described next:

1. Choose **Preset Manual** from the **White balance** menu.
2. Select **Use photo**.
3. The most recently shot picture will appear, with a menu offering to use **This image** or **Select image**.

4. Press OK to use the displayed image, or choose **Select image** to specify another picture on your memory card.
5. If you want to select a different image, you can choose which folder on your memory card, then navigate through the selected images, using a variation of the standard D5000 image selection screen shown several times previously in this chapter.
6. When the photo you'd like to use is highlighted, press OK to select it.
7. You'll be returned to the Shooting menu, where you can press the MENU button to exit, or just tap the shutter release.

ISO Sensitivity Settings

Options: ISO sensitivity, Auto ISO

The ISO setting feature governs how sensitive your D5000 is to light. Low ISO settings, such as ISO 200, provide better image quality, but mean that the camera must have more light available to take a picture, or that you must use wider lens openings or slower shutter speeds. Faster ISO settings let you take pictures in lower light levels, with faster shutter speeds (say, to freeze action) or with smaller lens openings (to produce a larger range in which objects are in sharp focus), but with an image quality and noise penalty.

This menu entry has two parts, **ISO sensitivity** (available with all exposure modes) and **ISO sensitivity auto control** (available only in PAS modes). The former is simply a screen that allows you to specify the ISO setting, just as you would by spinning the main command dial while holding down the ISO button on the back of the D5000. The available settings range from LO 1 (ISO 100 equivalent) through ISO 3200 to HI 1 (ISO 6400 equivalent).

The **ISO sensitivity auto control** menu used with Program, Shutter-priority, and Aperture-priority (but not Manual) exposure modes lets you specify how and when the D5000 will adjust the ISO value for you automatically under certain conditions. When **Auto ISO** is activated, the camera can bump up the ISO sensitivity whenever an optimal exposure cannot be achieved at the current ISO setting.

- **Off.** Set **ISO sensitivity auto control** to **Off**, and the ISO setting will not budge from whatever value you have specified. Use this setting when you don't want any ISO surprises, or when ISO increases are not needed to counter slow shutter speeds. For example, if the D5000 is mounted on a tripod, you can safely use slower shutter speeds at a relatively low ISO setting, so there is no need for a speed bump. On the other hand, if you're hand-holding the camera and the D5000 set for Program (P) or Aperture-priority (A) mode wants to use a shutter speed slower than, say, 1/30th

second, it's probably a good idea to increase the ISO to avoid the effects of camera shake. If you're using a longer lens, a shutter speed of 1/125th second or higher might be the point where an ISO bump would be a good idea. In that case, you can turn the **ISO sensitivity auto control** to **On**, or remember to boost the ISO setting yourself.

- **Maximum sensitivity.** Use this parameter to indicate the highest ISO setting you're comfortable having the D5000 set on its own. You can choose from ISO 400, 800, 1600, 3200, and HI 1 (ISO 6400 equivalent) as the max ISO setting the camera will use. Use a low number if you'd rather not take any photos at a high ISO without manually setting that value yourself. Dial in a higher ISO number if getting the photo at any sensitivity setting is more important than worrying about noise.
- **Minimum shutter speed.** This setting allows you to tell the D5000 how slow the shutter speed must be before the ISO boost kicks in, within the range 1 second to 1/250th second. The default value is 1/30th second, because for most shooters in most situations, any shutter speed longer than 1/30th is to be avoided, unless you are using a tripod or monopod, have a lens with vibration reduction, or are looking for a special effect. If you have steady hands, or the camera is partially braced against movement (say, you're using that monopod), a slower shutter speed, down to 1 full second, can be specified. Similarly, if you're working with a telephoto lens and find even a relatively brief shutter speed "dangerous," you can set a minimum shutter speed threshold of 1/250th second. When the shutter speed is faster than the minimum you enter, **Auto ISO** will not take effect.

Active D-Lighting

Options: Auto, Off, Low, Normal High, Extra High

D-Lighting is a feature that improves the rendition of detail in highlights and shadows when you're photographing high contrast scenes (those that have dramatic differences between the brightest areas and the darkest areas that hold detail). Unlike the post-shot **D-Lighting** feature found in the Retouch menu, **Active D-Lighting** can be applied to your pictures *while you are actually taking the photo*.

For best results, use your D5000's Matrix metering mode, so the Active D-Lighting feature can work with a full range of exposure information from multiple points in the image. Active D-Lighting works its magic by subtly *underexposing* your image so that details in the highlights (which would normally be overexposed and become featureless white pixels) are not lost. At the same time, it adjusts the values of pixels located in midtone and shadow areas so they

don't become too dark because of the underexposure. Highlight tones will be preserved, while shadows will eventually be allowed to go dark more readily. Bright beach or snow scenes, especially those with few shadows (think high noon, when the shadows are smaller), can benefit from using Active D-Lighting. Figure 3.16 shows a typical example.

You have a range of choices, from **Auto** (the D5000 chooses how much Active D-Lighting to apply), **Off** (no Active D-Lighting) to **Low**, **Normal**, **High**, and **Extra High**. You'll want to experiment to see which types of situations can benefit your shooting the most.



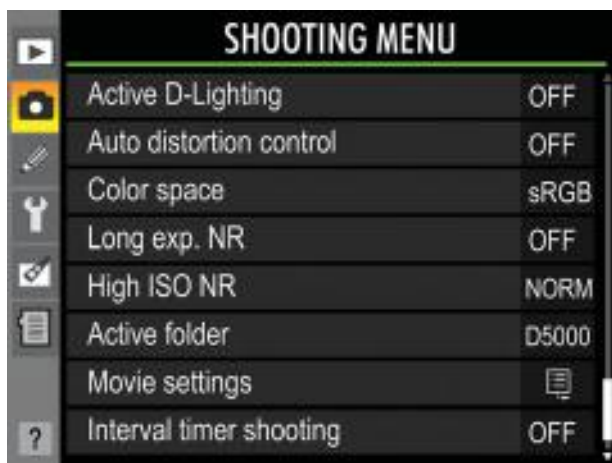
Figure 3.16

No D-Lighting (left); Active D-Lighting, Normal setting (right).

Auto Distortion Control

Options: Off (default), On

This is the first new entry in the second page of the Shooting menu (**Active D-Lighting** appears at the top because it wraps around from the previous page). (See Figure 3.17.) Thanks to the vagaries of optical science, lenses and focal lengths at the nether ends of the range spectrum have a tendency to add a small amount of distortion to the images they capture. Wide-angle optics tend to produce an effect called *barrel distortion*, in which straight lines bow outward towards the edges of the frame. Telephoto lenses and focal lengths often exhibit the opposite effect: straight lines bow inwards towards the center, producing *pincushion distortion*. The amount and visibility of such distortion depends on the particular lens you are using (some lenses are worse than others), and your subject matter (for example, a close-up of a chess board will assuredly reveal either type).

**Figure 3.17**

Auto distortion control is the first new entry on the second page of the Shooting menu.

If you have a lens that is particularly susceptible to distortion, or you are shooting subjects that tend to emphasize the effects (say, architecture or other scenes with lots of straight lines near the edges), use the D5000's **Auto distortion control** setting. It works only with lenses having the type G or D designation in their names, and can't assist when you're working with a fisheye or perspective control lens. Your choices are **Off** and **On**.

There are four main drawbacks to using **Auto distortion control**:

- **Too much.** The feature may provide too much correction if used with lenses or focal lengths that aren't flagrant offenders in the barrel and pincushion distortion departments.
- **Reduces sharpness.** It achieves its magic by adding the opposite kind of distortion, which can rob your image of some sharpness.
- **Crops your image.** This feature may end up cropping out part of your image at the edges as the distortion is reduced.
- **All or nothing.** When activated, the feature applies its modifications to all images at the appropriate focal lengths with compatible lenses, even if you might not want the effect for a particular photo. You'd need to turn it off when distortion control is not wanted. A better choice might be to use the **Distortion control** option in the Retouch menu after the picture has been taken. (Retouch is discussed later in this chapter.) That will allow you to keep your original image, while making a retouched copy with distortion correction added.

Color Space

Options: sRGB (default), Adobe RGB

The Nikon D5000's **Color space** option gives you two different color spaces: **Adobe RGB** (because it was developed by Adobe Systems in 1998), and **sRGB** (supposedly because it is the *standard* RGB color space). Regardless of which color space is used by the D5000, you end up with some combination of 16.8 million different colors that can be seen in your photograph.

Adobe RGB is an expanded color space useful for commercial and professional printing, and it can reproduce a wider range of colors. However, as an advanced user, you don't need to automatically "upgrade" your D5000 to Adobe RGB, because images tend to look less saturated on your monitor and, it is likely, significantly different from what you will get if you output the photo to your personal inkjet. (You can *profile* your monitor for the Adobe RGB color space to improve your on-screen rendition.) While both Adobe RGB and sRGB can reproduce the exact same 16.8 million absolute colors, Adobe RGB spreads those colors over a larger portion of the visible spectrum.

The sRGB space is recommended for images that will be output locally on the user's own printer, as it matches that of the typical inkjet printer fairly closely. It is well suited for the range of colors that can be displayed on a computer screen and viewed over the Internet. If you plan to take your image file to a retailer's kiosk for printing, sRGB is your best choice, because those automated output devices are calibrated for the sRGB color space that consumers use. If you shoot RAW or RAW+JPEG, with the camera set to one color space, you can extract the other from the RAW file at any time.

Long Exp. NR

Options: Off (default), On

Visual noise is the graininess caused by long exposures and high ISO settings, and which shows up as multicolored specks in images. This setting helps you manage the kind of noise caused by lengthy exposure times, usually those longer than eight seconds. Extended exposure times allow more photons to reach the sensor, but they increase the likelihood that some photosites will react randomly even though not struck by a particle of light. Moreover, as the sensor remains switched on for the longer exposure, it heats, and this heat can be mistakenly recorded as if it were a barrage of photons.

- **Off.** This default setting disables long exposure noise reduction. Use it when you want the maximum amount of detail present in your photograph, even though higher noise levels will result.

- **On.** When exposures are eight seconds or longer, the Nikon D5000 takes a second, blank exposure and compares that to the first image, subtracting from the original shot the pixels produced by noise. (While the second image is taken, the warning **Job nr** appears on the monochrome LCD panel and in the viewfinder.) Because the noise reduction process effectively doubles the time required to take a picture, you won't want to use this setting when you're rushed. Some noise can be removed later on, using image-editing tools.

High ISO NR

Options: Off, Low, Normal, High

Noise can also be caused by higher ISO sensitivity settings. You can choose **Off** when you want to preserve detail at the cost of some noise graininess, and the D5000 will apply high ISO NR only at the “boosted” settings of HI 0.3, HI 0.6, and HI 1.0. Or, you can select **Low**, **Normal**, and **High** noise reduction, which is applied when ISO sensitivity has been set to ISO 800 or higher.

Active Folder

Options: New, Rename, Delete

If you want to store images in a folder other than the one created and selected by the Nikon D5000, you can switch among available folders on your memory card, or create your own folder. Remember that any folders you create will be deleted when you reformat your memory card.

To change the currently active folder:

- Choose **Active folder** in the Shooting menu.
- Scroll down to **Select folder** and press the multi selector right button.
- From among the available folders shown, scroll to the one that you want to become active for image storage and playback. (This capability can be handy when displaying images using the Slide show feature.)
- Press the OK button to confirm your choice, or press the multi selector right button to return to the Shooting menu.

To create, delete, or rename a folder:

- Choose **Active folder** in the Shooting menu.
- Scroll down to **New**, **Rename**, or **Delete** and press the multi selector right button.
- To name a new folder or rename an existing folder, use the text entry screen and key in a name.
- Press OK when finished to create and activate the new folder.

Movie Settings

Options: Image Quality, Sound

There aren't too many options in this menu entry. You can select **Image quality** (frame size) and whether to use sound. All clips are shot at the same 24 frames per second rate. Your choices are as follows:

- **Quality—1280 × 720 (16:9).** Select this option to shoot HDTV-quality movies in the 16:9 aspect ratio. This mode uses the most space on your memory card, and limits your recording time to five minutes (about 2GB in size). Use this mode when you want to make clips that you can view on a television.
- **Quality—640 × 424 (3:2).** This mode shoots movies roughly comparable to what you'd get with a non-HDTV camcorder, such as a VHS recording. You can use this mode to get movies that look good on a standard television, or on a computer monitor as part of a presentation or web page. You can shoot sequences up to 20 minutes long.
- **Quality—320 × 216 (3:2).** This mode produces more compact movies that can be used on smaller screens and web pages. Your sequences at this setting can be up to 20 minutes long.
- **Sound—On/Off.** Use **On** to record movies with monaural sound. If you want silent movies, or plan to add your own narration, music, or sound-track later, or are working in a very noisy environment with lousy ambient sound, use the **Off** setting.

Interval Timer Shooting

The Nikon D5000's built-in time-lapse photography feature allows you to take pictures for up to 999 intervals in bursts of as many as nine shots, with a delay of up to 23 hours and 59 minutes between shots/bursts, and an initial start-up time of as long as 23 hours and 59 minutes from the time you activate the feature. That means that if you want to photograph a rosebud opening and would like to photograph the flower once every two minutes over the next 16 hours, you can do that easily. If you like, you can delay the first photo taken by a couple hours so you don't have to stand there by the D5000 waiting for the right moment. Or, you might want to photograph a particular scene every hour for 24 hours to capture, say, a landscape from sunrise to sunset to the following day's sunrise again. For best results, use a tripod, and plan on connecting your D5000 to an external power source.

The **Interval timer shooting** screen (see Figure 3.18) is confusingly designed, and the display changes in a quirky way depending on what information you're entering. Some portions of the screen aren't accessible until you've performed a prerequisite function. To set up interval timer shooting, just follow these steps. Before you start:

1. The D5000 uses its internal World Time clock to activate, so make sure the time has been set accurately in the Setup menu before you begin.
2. Mount the camera on a tripod or other secure support.
3. Fully charge the battery. You might want to use the Nikon AC Adapter EH-5a if you plan to shoot long sequences. Although the camera more or less goes to sleep between intervals, some power is drawn, and long sequences with bursts of shots can drain power even when you're not using the interval timer feature.
4. Make sure the camera is protected from the elements, accidents, and theft, and that the viewfinder is covered (using the DK-5 eyepiece cap if necessary) if you need to keep strong ambient light from entering the viewfinder and affecting exposure.



Figure 3.18

The Interval timer shooting main screen.

- Select time to begin shooting sequence
- Specific time has been selected
- Now has been selected
- Starting time
- Interval between shots
- Total number of shots to be taken
- Number of shots taken at each interval
- Total number of shots in the sequence
- Current time (now)

When you're ready to go, set up the D5000 for interval shooting:

1. Choose **Interval timer shooting** from the Shooting menu.
2. Specify a starting time. You must do this before the D5000 will let you set other parameters. Highlight either **Now** or **Start time** and press the multi selector right button. If you choose **Now**, the interval shooting will begin approximately three seconds after you've finished setting the parameters beginning with Step 5. If you select **Start time**, you'll be able to enter a specific time, as described in Steps 3 and 4.
3. When the **Start time** sub-screen appears, use the multi selector left/right buttons to highlight the hours or minutes, and the up/down buttons to increase or decrease the hours/minutes entry. The 24-hour clock is used, so you can specify a time from 00:00 (midnight) to 23:59 (one minute to midnight). When both hours and minutes have been set, press the multi selector right button to move the highlighting to the **Interval** section of the sub-screen.
4. Set the interval between exposures. You can use the left/right buttons to move among hours, minutes, and seconds, and use the up/down buttons to choose an interval from one second to 24 hours. Press the right button when finished to move down to the number of intervals/shots per interval sub-screen. **Note:** the interval cannot be shorter than the shutter speed; for example, you cannot set one second as the interval if the images will be taken at two seconds or longer.
5. Set number of intervals and shots per interval. Use the left/right buttons to highlight the number of intervals, the number of shots taken after each interval has elapsed, and the total number of shots to be exposed overall. You can highlight each number column separately, so that to enter, say, 250 intervals you can set the 100s, 10s, and 1s columns individually (rather than press the up button 250 times!). You can select up to 999 intervals, and 9 shots per interval for a maximum of 8991 exposures with one interval shooting cycle.
6. When all the parameters have been entered, press the multi selector right button once more, and the **Start** sub-screen appears, with the choices **On** or **Off**. Choose either one and press OK. If you activate interval shooting, a message is displayed on the monitor one minute before each series of shots begins.

TO CANCEL INTERVAL SHOOTING

Press the MENU button between intervals (but not when images are still being recorded to the memory card), turn the camera on or off, or rotate the mode dial to another position.

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Chapter 4

Custom, Setup, Retouch, and My Menu Settings

This chapter shows you how and why to use each of the options in the Custom, Setup, Retouch, and My Menu sections of your D5000's menu system.

The Custom Setting Menu

The Custom Setting menus consist of a series of six color-coded menu categories. The Custom Setting menus (see Figure 4.1) provide a roster of relatively stable groups of preferences that let you tailor the behavior of your camera in a variety of different ways for longer term use. Some options are minor tweaks useful for specific shooting situations. Others, such as the ability to assign a feature to the Fn button, make the camera more convenient to use. The categories include

- a Autofocus (red)
- b Metering/exposure (yellow)
- c Timers/AE lock (green)
- d Shooting/display (cyan)
- e Bracketing/flash (blue)
- f Controls (purple)

Reset

Options: Yes, No

You'd want to use this **Reset** option when you've made a bunch of changes to your Custom Settings (say, while playing around with them as you read this chapter), and now want to put them back to the factory defaults. If you select **Yes**, all the Custom Setting options will be reset to their default values. It has no effect on the settings in other menus, or any of the other camera settings. If that's what you want, try the two-button reset described in Chapter 1, holding down the D-Lighting button (just southwest of the shutter release) and Zoom In button (the bottom button to the left of the LCD), both marked with green dots, for about two seconds.



Figure 4.1
The Custom
Setting menu.

a Autofocus Options

The red-coded Autofocus options (see Figure 4.2) deal with some of the potentially most vexing settings available with the Nikon D5000. You may be able to compensate for bad exposure, but if focus is wrong, the photograph doesn't look right, and, usually, cannot be corrected. This submenu has four choices that control how your D5000 uses its autofocus system. They are as follows:

- a1 AF-area mode
- a2 Built-in AF-assist illuminator
- a3 Live View autofocus
- a4 Rangefinder

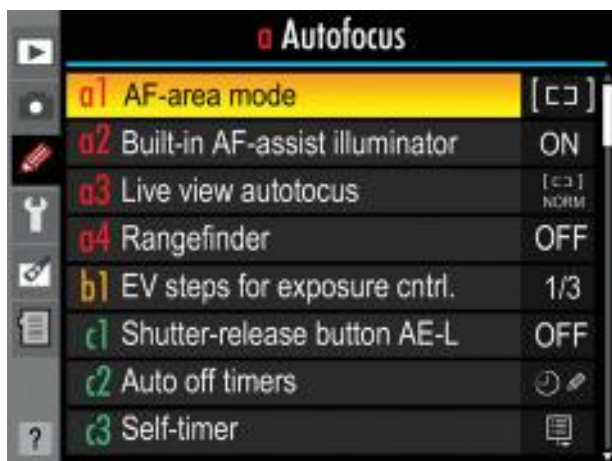


Figure 4.2
Autofocus
options.

a1 AF-Area Mode

Options: Single point, Dynamic area, Auto-area, 3D-tracking (11 points)

Auto-area tells your Nikon D5000 how to choose which of the 11 focus points in the viewfinder should be used to evaluate and lock in focus. The D5000 can choose a focus point itself, and does so automatically when using **Auto**, **No-Flash**, **Portrait**, **Landscape**, **Night Portrait**, and in PSAM (Program, Shutter-priority, Aperture-priority, Manual) when you select **Auto-area**. You can use the multi selector pad to shift the active point to any of the 11 focus points seen in the viewfinder. Then, choose either **Single point** or **Dynamic area** from the list below.

- **Single point.** You choose which of the 11 points to use with the multi selector buttons. Good for stationary subjects, Single point is used automatically in Close-up scene mode.
- **Dynamic area.** You can select the focus point, but the D5000 can use other focus points as well. Good for objects that are moving, the D5000 will use the area you choose in Single-servo AF mode (AF-S), or, when using Continuous AF mode (AF-C) or Automatic AF mode (AF-A), the D5000 will refocus using other focus zones if the subject begins moving. Use for sports and active children.
- **Auto-area.** This default mode chooses the focus point for you, and can use distance information when working with a G or D lens that supplies that data to the camera.
- **3D-tracking (11 points).** In this mode, you select the focus point using the multi selector, but if you subsequently reframe the picture slightly, the D5000 uses distance information when in AF-C or AF-A modes to refocus on the original subject if necessary. (When using AF-S, this mode functions the same as Single point focus area mode.) This mode is useful if you need to reframe a relatively static subject from time to time. If your subject leaves the frame entirely, you'll need to release the shutter button and refocus.

a2 Built-in AF-Assist Illuminator

Options: On (default), Off

Use this setting to control use of the AF-assist lamp built into the Nikon D5000, or the more powerful AF-assist lamp built into Nikon electronic flash units (like the Nikon SB-900) and the Nikon SC-29 remote flash cord (used for firing the flash when not mounted on the camera).

- **On.** This default value will cause the AF-assist illuminator lamp to illuminate when lighting is poor, but only if Single-servo AF (AF-S) is active, or you have selected the center focus point manually and either Single

point or Dynamic area autofocus (rather than Auto-area autofocus) has been chosen.

- **Off.** Use this to disable the AF-assist illuminator. This is useful when the lamp might be distracting or discourteous (say, at a religious ceremony or acoustic music concert), or your subject is located closer than 1 foot, eight inches or farther than about 10 feet.

a3 Live View Autofocus

Options: Face priority, Wide-area, Normal area, Subject tracking

Although you can select any of the three Live View autofocus modes while using Live View (just press the information edit button at the lower left edge of the back of the camera, and rotate the command dial), you can specify a default mode for Live View here:

- **Face priority.** No indicator box is shown on the LCD. The camera detects a human subject facing the camera, and focuses on that person, placing a yellow border around the face that has been detected.
- **Wide-area.** A large red box appears on the LCD when using this mode. Use the multi selector to move the box around the frame to focus on a subject of your choice.
- **Normal area.** A smaller red box appears. Use the multi selector to “spot” focus precisely.
- **Subject tracking.** Place the subject you want to track within the box that appears on the LCD and press the multi selector up button. The D5000 will lock focus on that subject, and then follow it as the subject moves or you reframe the image by moving the camera.

a4 Rangefinder

Options: On, Off (default)

This clever feature, when activated, supplements the green focus confirmation indicator at the left edge of the viewfinder by transforming the analog exposure indicator as an “in-focus/out-of-focus” scale to show that correct focus has been achieved when focusing manually.

Some lenses don’t offer autofocus features with the Nikon D5000, because they lack the internal autofocus motor the D5000 requires. In addition, many manual focus lenses that never had autofocus features can also be used with the D5000 in manual focus mode. All you need to know is that Nikon lenses with the AF-S designation in the lens name *will* autofocus on the D5000, while those with the AF, AI, or AI-S designation will not. Specifications for lenses from other vendors will indicate whether the lens includes an autofocus motor or not.

When a non-autofocus lens is mounted on the Nikon D5000, and the camera has been set for any exposure mode except for Manual (M)—that is, any of the Scene modes, plus Program, Aperture-priority, or Shutter-priority—manual focus mode is automatically activated. (You'll see **MF** focus in the shooting information display, and **AF-area mode** selection will be disabled in CSM **a1: AF-area mode**.) You can manually focus by turning the focus ring on the lens (set the lens to Manual focus if it is an AF-type lens) and watching the sharpness of the image on the focusing screen. The focus confirmation indicator at the lower-left corner of the viewfinder will illuminate when correct focus is achieved, if your lens has a maximum aperture of $f/5.6$ or larger (that is, a larger number, such as $f/5.6$, $f/4.5$, $f/4$, and so forth).

Tip

Note that this feature is not available when shooting in Manual *exposure* mode however. The D5000 shows whether exposure is under, over, or correct, instead. Use the focus confirmation lamp to monitor manual focus in rangefinder mode.

Only the six indicators shown in Figure 4.3 are displayed. Two centered rectangles indicate that correct focus has been achieved; when all 12 are shown, it means that correct focus cannot be indicated. Three and six bars show that slight or major focus corrections are needed, respectively.

Turn the rangefinder **On** with this Custom Setting option if you want an additional manual focusing aid. With a manual focus lens and the rangefinder operating, the analog exposure display at bottom right in the viewfinder will be

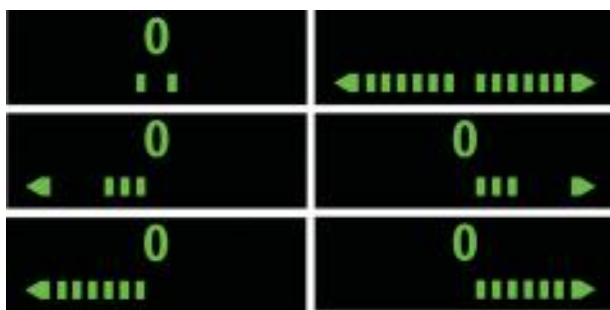


Figure 4.3 Upper left: Correct focus; upper right: focus is grossly incorrect; center left: focus slightly in front of the subject; center right: focus slightly behind the subject; bottom left: focus significantly in front of the subject; bottom right: focus significantly behind the subject.

replaced by a rangefinder focusing scale. Indicators on the scale like those in Figure 4.3 show when the image is in sharp focus, as well as when you have focused somewhat in front of, or behind the subject. Follow these steps to use the rangefinder:

1. Press the multi selector buttons to choose a focus point that coincides with the subject you'd like to be in focus.
2. Rotate the focusing ring, watching the rangefinder scale at the bottom of the viewfinder. If the current sharp focus plane is *in front* of the point of desired focus, the rangefinder scale will point towards the left side of the viewfinder. The greater the difference, the more bars (either three or six bars) shown in the rangefinder.
3. When the current focus plane is *behind* the desired point of focus, the rangefinder indicator will point to the right.
4. When the subject you've selected with the focus zone bracket is in sharp focus, only two bars will appear, centered under the 0, and the focus confirmation indicator will stop blinking.

b Metering/Exposure Options

The orange-coded metering/exposure Custom Setting (see Figure 4.2, earlier) has only one entry, which allows you to choose whether to use one-third or one-half stops when making exposure adjustments.

- b1 EV steps for exposure cntl

b1 EV Steps for Exposure Cntrl

Options: 1/3 step (default), 1/2 step

This setting tells the Nikon D5000 the size of the “jumps” it should use when making exposure adjustments, exposure compensation, and bracketing—either one-third (e.g., 1/60th, 1/80th, 1/100th second; f/5.6, f/6.3, f/7.1), or one-half (1/60th, 1/90th, 125th; f/5.6, f/6.7, f/8). The increment you specify here applies to f/stops, shutter speeds, EV changes, and autoexposure bracketing. As with ISO sensitivity step value, you can select from 1/3 step (the default); or 1/2 step increments. Choose the 1/3 stop setting when you want the finest increments between shutter speeds and/or f/stops. With 1/2-stop increments, you will have larger and more noticeable changes between settings.

c Timers/AE Lock

The green-coded Timers/AE lock Custom Setting (spread over Figures 4.2 and 4.4) lets you define four different parameters that affect exposure metering in

the Nikon D5000. This category is a mixed bag of settings, covering both entries that adjust delay times and how the shutter release and AE-L buttons interact. Your choices are as follows:

- c1 Shutter release button AE-L
- c2 Auto off timers
- c3 Self-timer
- c4 Remote on duration

c1 Shutter Release Button AE-L

Options: Off (default), On

This is another of Nikon's easily confusing options for controlling how and when autofocus and exposure are activated and locked. The intent is to allow you to separate autofocus and autoexposure activation and locking.

- **Off.** Exposure is locked *only* when the AE-L/AF-L button is pressed.
- **On.** Exposure locks when either the shutter release button is depressed halfway or the AE-L/AF-L button is held down.

c2 Auto Off Timers

Options: Short, Normal, Long, Custom

Use this setting to determine how long the D5000's Playback menu, image review, and exposure meters continue to operate after the last operation, such as autofocusing, focus point selection, and so forth, was performed. Choose Short, Normal, or Long, or select Custom to choose specific times for the Playback menu, image review, and meters separately. To save power, you can choose a Custom value and select an intermediate time, such as 8, 16, or 30 seconds if the default value is not long enough. When the Nikon EH5a or EH-5 AC adapter is connected to the D5000, the exposure meter will remain on indefinitely. Even so, sports shooters and some others want a longer delay for the exposure meters, because they are able to keep their camera always "at the ready" with no delay to interfere with taking an action shot that unexpectedly presents itself. Of course, even if the meters have shut off, if the power switch remains in the On position, you can bring the camera back to life by tapping the shutter button.

c3 Self-Timer Delay

Options: 2s, 5s, 10s (default), 20s

This setting lets you choose the length of the self-timer shutter release delay. If I have the camera mounted on a tripod or other support and am too lazy to attach the MC-D2 cable release or don't have my infrared remote handy, I can set a 2-second delay that is sufficient to let the camera stop vibrating after I've

pressed the shutter release. I use a longer delay time if I am racing to get into the picture myself and am not sure I can make it in 10 seconds. You can also choose the number of shots that will be taken each time the self-timer is triggered. Choose from 1-9 shots.

c4 Remote on Duration

Options: 1 min. (default), 5 min., 10 min., 15 min.

To avoid unwanted battery drain, use the times longer than the default 1 minute only if you know there will be a delay before you activate the shutter when using the IR remote control.

d Shooting/Display

The cyan-coded Shooting/Display section (shown as the bottom seven entries of Figure 4.4) has settings that let you define different parameters that affect exposure metering in the Nikon D5000. There are a variety of mostly unrelated shooting and display options not found elsewhere, but which are not frequently changed, making them suitable for a Custom Setting entry.

Your choices are as follows:

- d1 Beep
- d2 Viewfinder grid display
- d3 ISO display
- d4 File number sequence
- d5 Exposure delay mode
- d6 Date imprint
- d7 Live View display options

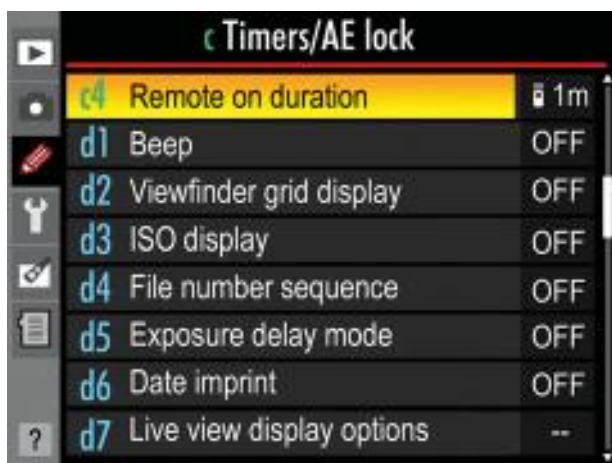


Figure 4.4

There are seven Shooting/Display options.

d1 Beep

Options: High (default), Low, Off

The Nikon D5000's internal beeper provides a (usually) superfluous chirp to signify various functions, such as the countdown of your camera's self-timer/delayed remote or autofocus confirmation in AF-S mode or AF-A mode with a static subject. You can (and probably should) switch it off if you want to avoid the beep because it's annoying, impolite, or distracting (at a concert or museum), or undesired for any other reason. It's one of the few ways to make the D5000 a bit quieter. Your choices are **High**, **Low**, and **Off**. When the beeper is active, a musical note icon is shown in the LCD information screen. If you visit the menu and find this choice grayed out, check to see that you haven't chosen the "quiet" release mode.

d2 Viewfinder Grid Display

Options: On, Off (default)

The D5000 can display a grid of lines overlaid on the viewfinder, offering some help when you want to align vertical or horizontal lines. Note that the intersections of these lines do *not* follow the Rule of Thirds convention, and so are less useful for composition, assuming you want to follow the Rule of Thirds guideline in the first place.

d3 ISO Display

Options: On, Off (default)

It's useful to have the current ISO sensitivity displayed in the viewfinder. Decide whether you would rather have a frame counter or ISO setting displayed, and then choose one of this menu entry's two options:

- **On.** With this default setting active, the current ISO setting is displayed.
- **Off.** When this option is selected, the frame counter is shown at right in the lower-edge display of the viewfinder.

d4 File Number Sequence

Options: On, Off (default), Reset

The Nikon D5000 will automatically apply a file number to each picture you take, using consecutive numbering for all your photos over a long period of time, spanning many different memory cards, starting over from scratch when you insert a new card, or when you manually reset the numbers. Numbers are applied from 0001 to 9999, at which time the D5000 "rolls over" to 0001 again.

- **On.** At this default setting, the D5000 will use the number stored in its internal memory any time a new folder is created, a new memory card inserted, or an existing memory card formatted. If the card is not blank and contains images, then the next number will be one greater than the highest number on the card *or* in internal memory (whichever is higher).
- **Off.** If you're using a blank/reformatted memory card, or a new folder is created, the next photo taken will be numbered 0001. File number sequences will be reset every time you use or format a card, or a new folder is created (which happens when an existing folder on the card contains 999 shots).
- **Reset.** The D5000 assigns a file number that's one larger than the largest file number in the current folder, unless the folder is empty, in which case numbering is reset to 0001. At this setting, new or reformatted memory cards will always have 0001 as the first file number.

d5 Exposure Delay Mode

Options: Off (default), On

Use this to force the Nikon D5000 to snap a picture about one second after you've pressed the shutter release button all the way. It's useful when you are using shutter speeds of about 1/8 to 1/60th second hand-held and want to minimize the effects of the vibration that results when you depress the shutter button. It can also be used when the camera is mounted on a tripod, although the Self-timer function, set to a 2-second delay, is more useful in that scenario.

d6 Date Imprint

Options: Off (default), Date, Date/Time, Date Counter

You can superimpose the date, time, or both on your photographs, or imprint a date counter that shows the number of days (or years and days, or months, years, and days) between when the picture was taken and a date (in the past or future) that you select. The good news is that this feature can be useful for certain types of photographs used for documentation. While the D5000's time/date stamp may not be admissible in a court of law, it makes a convincing (or convenient) in-picture indication of when the shot was made. This feature works only with JPEG images; you cannot use **Date imprint** with pictures taken using the RAW or RAW+Basic settings.

The bad news, especially if you use the feature accidentally, is that the imprint is a permanent part of the photograph. You'll have to polish up your Photoshop skills if you want to remove it, or, at the very least, crop it out of the picture area. Date and time are set using the format you specify in the **World time** setting of the Setup menu, described in the next section.

Your options are as follows:

- **Off.** Deactivates the date/time imprint feature.
- **Date.** The date is overlaid on your image in the bottom-right corner of the frame, and appears in the shooting information display. If you've turned on **Auto image rotation**, the date is overlaid at the bottom-right corner of vertically oriented frames.
- **Date/Time.** Both date and time are imprinted, in the same positions.
- **Date counter.** This option imprints the current date on the image, but also adds the number of days that have elapsed since a particular date in the past that you specify, *or* the days remaining until an upcoming date in the future.

Using the Date Counter

If you're willing to have information indelibly embedded in your images, the **Date counter** can be a versatile feature. You can specify several parameters in advance (or at the time you apply the **Date counter**) and activate the overprinting *only* when you want it. The parameters, shown in Figure 4.5, are as follows:

- **Off.** Select this from the main **Date imprint** screen. Choosing **Off** disables the imprinting of date, date/time, *and* the **Date counter**. When disabled, no date or counter information is shown, regardless of how you have set the other parameters.
- **Choose date.** When you enter the **Date counter** screen, one option lets you enter up to three different dates for your countdown/countup. When you activate the **Date counter**, you can choose from the three dates (or a



Figure 4.5

You can select dates in the past or future, and specify whether to display number of days, or number of days and months, or days, months and years.

new date you enter to replace one of the three) and use that for your date counting imprint.

- **Display options.** Also in the **Date counter** screen, you can select **Display options**, which allows you to specify **Number of days, Years and days**, or **Years, months, and days** for the **Date counter** readout imprinted on your images.
- **Done.** When you've finished entering date and display options, choose **Done** to return to the Custom Setting menu. (You *must* do this. If you press the MENU button or tap the shutter release button at this point, your changes will not be confirmed.)

f Live View Display Options

Options: Show indicators, Hide indicators, Framing Grid, Show Shooting Info.

These options control whether certain information is overlaid on the screen during Live View display. Press the up/down buttons to select an option, and then the right button to activate/deactivate it. A check mark appears next to the option when active. When finished, highlight **Done** at the top of the Live View Display Options menu and press OK.

e Bracketing/Flash

The blue-coded Shooting/Display section (see Figure 4.6) has just two settings: one for flash and one for bracketing. Your choices are as follows:

- e1 Flash cntrl for built-in flash
- e2 Auto bracketing set



Figure 4.6

There are two options in the Bracketing/Flash Custom Setting menu.

e1 Flash Cntrl for Built-in Flash

Options: TTL (default), Manual, Optional Flash (when SB-400 flash is attached)

The Nikon D5000's built-in flash has two modes.

- **TTL.** When the built-in flash is triggered, the D5000 first fires a pre-flash and measures the light reflected back and through the lens to calculate the proper exposure when the full flash is emitted a fraction of a second later.
- **Manual.** You can set the level of the built-in flash from full power to 1/128 power.
- **Optional flash.** This entry appears when the SB-400 flash is attached and turned on. It allows you to specify TTL or Manual for the optional flash attachment.

e2 Auto Bracketing Set

Options: AE bracketing (default) WB bracketing, ADL bracketing

The Nikon D5000 can automatically take several pictures using slightly different settings within a range that you specify, and apply the changes to automatic exposure, white balance, or Active D-Lighting. This setting allows you to specify whether bracketing is used for automatic exposure only (**AE only**), white balance color bracketing alone (**WB bracketing**), or Active D-Lighting bracketing alone (**ADL bracketing**). (With **ADL bracketing** the D5000 takes two pictures, one with ADL turned off, and a second using your currently selected ADL setting.)

No autoexposure will be performed when white balance bracketing is activated. Because you can specify white balance manually when importing a RAW file, WB bracketing is not available when **Quality** has been set to **NEF (RAW)** or **NEF (RAW)+JPEG**. I tend to leave this option set to **AE** most of the time. White balance bracketing is useful when you're not quite sure of the color balance of your illumination. ADL bracketing is chiefly useful when you're first learning to use this feature and want to compare shots with/without Active D-Lighting.

f Controls

The purple-coded Controls section (see Figure 4.6) has five settings that let you modify the way various control buttons and dials perform by using the options in this submenu.

- f1 Assign Self-timer/Fn button
- f2 Assign AE-L/AF-L button
- f3 Reverse dial rotation
- f4 No memory card?
- f5 Reverse indicators

f1 Assign Self-Timer/Fn Button

Options: Self-timer (default), Release mode, Image quality/Size, ISO sensitivity, White balance, Active D-Lighting, NEF+RAW, Auto bracketing

You can define the action that the Function (Fn) button performs when pressed. There are eight different actions you can define for the button. As you change the functions using the Fn button, the new setting appears on the information screen:

- **Self-timer.** When you choose this action for your Fn button, a single press enables or disables the Self-timer function. When the Self-timer is “live,” just press the shutter release down all the way to trigger it. That’s a lot faster than using the information edit screen and a bunch of multi selector pad presses to change from some other release mode to Self-timer. Your initial Fn button press toggles the D5000 from the current release mode to whatever Self-timer mode you’ve most recently selected using information edit and CSM **c3: Self-timer**. That is, if you’ve selected a 2-second delay and four consecutive shots, that’s the mode the camera switches into when you press the Fn button the first time. Taking a picture (or sequence) automatically reverts the camera to Single frame mode, or you can do that by pressing the Fn button a second time *before* taking your Self-timer sequence.
- **Release mode.** This option is a good choice when your release mode switching options are more ambitious. Press the Fn button and rotate the command dial, and you can switch among any of the available release modes. You can still switch to Self-timer mode, if you want, but you also have the choice of twirling the dial and selecting Continuous shooting, or Remote, or one of the other modes.
- **Image quality/Size.** When you’ve chosen this option, hold down the Fn button and rotate the command dial to cycle among all the available 19 combinations of RAW, JPEG Fine, JPEG Normal, JPEG Basic, RAW+ one of the JPEG settings, and both JPEG and RAW+JPEG at Large, Medium, and Small resolutions. As always, when selecting RAW (only), resolution is fixed at Large; Medium and Small can only be chosen if you are saving a JPEG file, or RAW+JPEG file.
- **ISO sensitivity.** With this setting, you can hold down the Fn button and rotate the command dial to choose any of the available ISO settings.
- **White balance.** With this setting, you can hold down the Fn button and rotate the command dial to choose any of the available white balance settings.
- **Active D-Lighting.** Use this option and the command dial switches among any of the Active D-Lighting settings as you rotate the command dial.

- **+NEF (RAW).** You've optimized your JPEG settings so your images look good. Then, suddenly, you encounter a situation that you recognize might require some post-processing touch up, preferably with a RAW image. If you've set this option, you can press the Fn button to take the next picture as a JPEG+RAW. I've used this setting while photographing under a fairly constant light source, only to find a different light source (say, a spotlight that somebody turned on unexpectedly) that differs from my chosen color balance. Press Fn, shoot a RAW+JPEG combo, then adjust the RAW picture later for the right color balance.
- **Auto bracketing.** This choice lets you hold down the Fn button and activate autoexposure bracketing using increments of up to ± 2 stops.

f2 Assign AE-L/AF-L Button

Options: AE/AF lock (default), AE lock only, AF lock only, AE lock (hold), AF (AF-ON)

When the Nikon D5000 is set to its default values, a half-press of the shutter release locks in the current autofocus setting in AF-S mode, or in AF-A mode if your subject is not moving. (The camera will refocus if the subject moves and the D5000 is set for AF-C or AF-A mode.) That half-press also activates the exposure meter, but, ordinarily, the exposure changes as the lighting conditions in the frame change.

You can change that behavior to something else. For example, sometimes you want to lock in focus and/or exposure, and then reframe your photo. For that, and for other focus/exposure locking options, Nikon gives you the AE-L/AF-L button (located on the back of the camera to the right of the viewfinder window), and a variety of behavior combinations for it. This setting allows you to define whether the Nikon D5000 locks exposure, focus, or both when the button is pressed, so the AE-L/AF-L button can be used for these functions in addition to, or instead of a half-press of the shutter release. It can also be set so that autofocus starts *only* when the button is pressed; in that case, a half-press of the shutter release initiates autoexposure, but the AE-L/AF-L button *must* be pressed to start the autofocus process. These options can be a little confusing, so I'll offer some clarification:

- **AE/AF lock.** Locks both focus and exposure while the AE-L/AF-L button is pressed and held down, even if the shutter release button has not been pressed. This is the default value, and is useful when you want to activate and lock in exposure and focus independently of the shutter release button. Perhaps your main subject is off-center; place that subject in the middle of the frame, lock in exposure and focus, and then reframe the picture while holding the AE-L/AF-L button.

- **AE lock only.** Lock only the exposure while the AE-L/AF-L button is pressed. The exposure is fixed when you press and hold the button, but autofocus continues to operate (say, when you press the shutter release halfway) using the AF-A, AF-S, or AF-C mode you've chosen.
- **AF lock only.** Focus is locked in while the AE-L/AF-L button is held down, but exposure will continue to vary as you compose the photo and press the shutter release button.
- **AE lock (Hold).** Exposure is locked when the AE-L/AF-L button is pressed, and remains locked until the button is pressed again, or the exposure meter-off delay expires. Use this option when you want to lock exposure at some point, but don't want to keep your thumb on the AE-L/AF-L button.
- **AF (AF-ON).** The AE-L/AF-L button is used to initiate autofocus. A half-press of the shutter release button does not activate or change focus. This setting is useful when you want to frame your photo, press the shutter release halfway to lock in exposure, but don't want the D5000 to autofocus until you tell it to. I use this for sports photography when I am waiting for some action to move into the frame before starting autofocus. For example, I might press the AE-L/AF-L button just before a racehorse crosses the finish line.

f3 Reverse Dial Rotation

Options: Yes, No (default)

You can use the options in this menu entry to change the behavior of the command dials. Use the available tweaks to change the behavior of the dials to better suit your preferences, or if you're coming to the Nikon world from another vendor's product that uses a different operational scheme. Keep in mind that redefining basic controls in this way can prove confusing if someone other than yourself uses your camera, or if you find yourself working with other Nikon cameras that have retained the normal command dial behavior.

Your only option is to turn rotation On or Off. In normal mode (**Off**), rotating the command dial counterclockwise causes shutter speeds to become shorter in Manual and Shutter-priority modes; rotating the sub-command dial counterclockwise selects larger f/stops. If you want to reverse the directional orientation of the dial (so you'll need to rotate the command dial clockwise to specify shorter shutter speeds, etc.), set this option to **Yes**. Set to **No** to return to the original D5000 scheme of things.

f4 No Memory Card?

Options: Release locked (default), Enable release

This entry gives you the ability to snap off “pictures” without a memory card installed—or, alternatively, to lock the camera shutter release if no card is present. Choose **Enable release** to activate “play” mode or **Release locked** to disable it. The pictures you actually “take” are displayed on the LCD with the legend **Demo** superimposed on the screen, and they are, of course, not saved. If you are using the optional Camera Control Pro 2 software to record photos from a USB-tethered D5000 directly to a computer, no memory card is required to unlock the shutter even if **Release locked** has been selected.

f5 Reverse Indicators

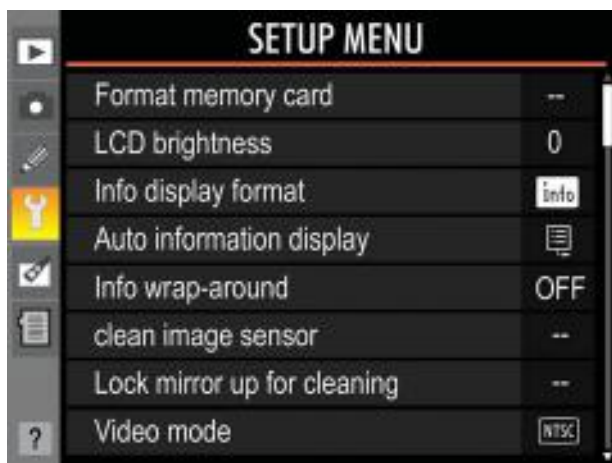
Options: +0– (default), –0+

Refugees from the Canon world or other dSLR product lines are sometimes put off that Nikon cameras place the plus exposure values on the left side of the analog exposure display in the control panel, viewfinder, and shooting information display, with the negative values on the right. This default setting (+0–) can be swapped for the opposite orientation (–0+) to change the display to the other orientation. My take is that if you’ve fled to Nikonland, you might as well get used to it. I suppose this setting is useful for a dedicated Canon shooter who sometimes uses a Nikon dSLR.

Setup Menu Options

The orange-coded Setup menu (see Figure 4.7 for its first page) has a long list of 17 entries. In this menu you can make additional adjustments on how your camera *behaves* before or during your shooting session, as differentiated from the Shooting menu, which adjusts how the pictures are actually taken. Your choices include

- Format memory card
- LCD brightness
- Info display format
- Auto information display
- Info wrap-around
- Clean image sensor
- Lock up mirror for cleaning
- Video mode
- HDMI
- Time zone and date
- Language
- Image comment
- Auto image rotation
- Image Dust Off ref photo
- GPS
- Eye-Fi upload
- Firmware version

**Figure 4.7**

The first page of the Setup menu has eight entries.

Format Memory Card

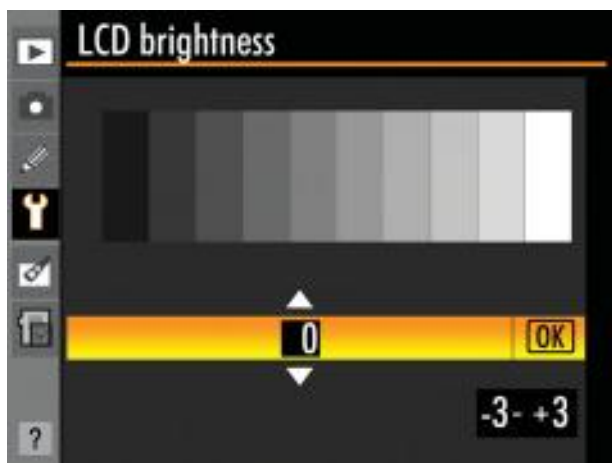
Options: Yes, Cancel

I recommend using this menu entry to reformat your memory card after each shoot to avoid stray files and to set up a fresh file system. To format a memory card, choose this entry from the Setup menu, highlight **Yes** on the screen that appears, and press OK. You can also format a memory card by pressing the Format #1 and Format #2 buttons as described in Chapter 2. I prefer not to use that option, because it's too easy to get into the habit, and potentially reformat a card by mistake. Do not turn off your camera while formatting is underway.

LCD Brightness

Options: Brighter/darker, Auto dim: On (default), Off

You can choose to adjust the intensity of the display using the LCD brightness option. A grayscale strip appears on the LCD, as shown in Figure 4.8. Use the multi selector up/down keys to adjust the brightness to a comfortable viewing level over a range of +3 to -3. Under the lighting conditions that exist when you make this adjustment, you should be able to see all 10 swatches from black to white. If the two end swatches blend together, the brightness has been set too low. If the two whitest swatches on the right end of the strip blend together, the brightness is too high. Brighter settings use more battery power, but can allow you to view an image on the LCD outdoors in bright sunlight. When you have the brightness you want, press OK to lock it in and return to the menu.

**Figure 4.8**

Adjust the LCD brightness so that all the grayscale strips are visible.

Info Display Format

Options: Classic, Graphic

You can choose the format the Nikon D5000 uses for its shooting information screen. Two formats are available, and you can specify them separately for the camera's fully automated Scene modes, and for the semi-automated Program, Shutter-priority, Aperture-priority, and Manual exposure modes (collectively known as P, S, A, M). The available modes are as follows:

- **Classic.** This is a mostly text-based format with a few icons, as shown in Figure 4.9, left. You'll find this format the fastest to use once you've grown accustomed to the D5000 and its features, as all the information is clustered in a no-nonsense way that is easy to read. I set both Scene and PSAM mode groups to this format.
- **Graphic.** This format mixes text and graphics, and includes a facsimile of the mode dial that appears briefly on the left side of the screen as you change from one exposure mode to the other. (See Figure 4.9, right.) It's prettier to look at and adds a little flair to the display, because you can choose green, black, or brown backgrounds, but I find it distracting. As you gain familiarity with your D5000, you might want to keep the Classic format for PSAM modes that you'll be using most often, and apply the Graphic format for the Scene modes, which, I predict, will come into play only when you hand your camera to a less-experienced photographer.



Figure 4.9 The Classic information display is clean and based mostly on text (left). The Graphic format spices up the display with some graphical elements (right).

You can change the shooting information display to the format of your choice using three easy-to-understand screens:

1. Choose **Info display** format from the Setup menu.
2. Select either **Auto/Scene modes** or **P, S, A, and M modes** and press the multi selector right button.
3. Choose either **Classic** or **Graphic** and press the multi selector right button.
4. Specify a background color and press OK:
 Classic: Blue, Black, or Orange
 Graphic: Green, Black, Brown
5. You'll be returned to the first screen you saw, where you can again choose from **Auto/Scene modes**, or **P, S, A, and M modes**, or press the MENU button (or tap the shutter release) to exit.

Auto Information Display

Options: On, Off

This setting controls when the shooting information display is shown on the LCD. The display is a handy tool for checking your settings as you shoot. It does use up battery power, so you might want to turn off the automatic display if you don't need to review your settings frequently, or if you especially want to conserve battery power. The shooting information display can be viewed any time by pressing the Info button at the lower left side of the back of the D5000.

As with the **Info display format**, you can choose separate behaviors for **Auto/Scene modes** and **P, S, A, and M modes**. Here's how this option works:

- **On.** The D5000 will display the shooting information screen if the shutter release button is pressed halfway and released. If you've set **Image review** to **Off** in the Playback menu, the shooting information screen appears as

soon as the photograph is taken. If **Image review** is set to **On**, the shooting information screen appears when the shutter release is pressed halfway and released, or if the Info button is pressed.

- **Off.** The shooting information screen is not displayed when you press the shutter release button halfway and release it. You can activate the display by pressing the Info button.

Info Wrap-Around

Options: On, Off (default)

This determines whether the cursor will wrap around from one side of the information display to the other. You can choose **On** or **Off**.

Clean Image Sensor

Options: Clean now, Clean at startup, Clean at shutdown, Clean at both startup and shutdown, Cleaning off

The options are **Clean now** and **Clean at startup/shutdown**. Then, if you select **Clean at startup/shutdown**, you have the following options: **ON Clean at startup**, **OFF Clean at shutdown**, **ON/OFF Clean at startup & shutdown**, and **Cleaning off**.

This gives you control over the Nikon D5000's automatic sensor cleaning feature, which removes dust through a vibration cycle that shakes the sensor until dust, presumably, falls off and is captured by a sticky surface at the bottom of the sensor area. You can access this menu choice, place the camera with its base downward, choose **Clean now**, and press OK. A message **Image sensor cleaning** appears, and the dust you noticed has probably been shaken off. You can also tell the D5000 when you'd like it to perform automatic cleaning without specific instructions from you. Choose **Clean at** and select from:

- **On. Clean at startup.** This allows you to start off a particular shooting session with a clean sensor.
- **Off. Clean at shutdown.** This removes any dust that may have accumulated since the camera has been turned on, say, from dust infiltration while changing lenses. Note that this choice does not turn off automatic cleaning; it simply moves the operation to the camera power-down sequence.
- **On/Off. Clean at startup & shutdown.** Use this setting if you're paranoid about dust and don't mind the extra battery power consumed each time the camera is turned on or off. If you only turn off the D5000 when you're finished shooting, the power penalty is not large, but if you're the sort who

turns off the camera every time you pause in shooting, the extra power consumed by the dust removal may exceed any savings you get from leaving the camera off.

- **Cleaning off.** No automatic dust removal will be performed. Use this to preserve battery power, or if you prefer to use automatic dust removal only when you explicitly want to apply it.

Lock Mirror Up for Cleaning

Options: Start

You can also clean the sensor manually. Use this menu entry to raise the mirror and open the shutter so you'll have access to the sensor for cleaning with a blower, brush, or swab. You don't want power to fail while you're poking around inside the camera, so this option is available only when sufficient battery power (at least 60 percent) is available. Using a fully charged battery or connecting the D5000 to an EH-5/EH5a AC adapter is an even better idea.

Video Mode

Options: NTSC, PAL

This controls the output of the Nikon D5000 when directed to a conventional video system through the video cable when you're displaying images on a monitor or connected to a VCR through the external device's yellow video input jack. You can select either NTSC, used in the United States, Canada, Mexico, many Central, South American, and Caribbean countries, much of Asia, and other countries; or PAL, which is used in the UK, much of Europe, Africa, India, China, and parts of the Middle East.

HDMI

Options: Auto (default), 480p, 576p, 720p, 1080i

Use this setting, the first on the second page of the Setup menu (see Figure 4.10), to control the HDMI format used to play back camera images and movies on an HDTV. You can choose **Auto**, in which case the camera selects the right format, or, to suit your particular HDTV, one of three progressive scan options (**480p**—640 × 480 pixels; **576p**—720 × 576 pixels; **720p**—1280 × 720 pixels), and one interlaced scan option (**1080i**—1920 × 1080 pixels).

Note that this setting controls *only* the output from your D5000 to the HDTV. It has no effect on the resolution of your images or your movie clips.

**Figure 4.10**

Eight more entries are shown on the second page of the Setup menu.

Time Zone and Date

Options: Time zone, Date, Date format, Daylight savings time

Use this menu entry to adjust the D5000's internal clock. Your options include

- **Time zone.** A small map will pop up on the setting screen and you can choose your local time zone. I sometimes forget to change the time zone when I travel (especially when going to Europe), so my pictures are all time-stamped incorrectly. I like to use the time stamp to recall exactly when a photo was taken, so keeping this setting correct is important.
- **Date.** Use this setting to enter the exact year, month, day, hour, minute, and second.
- **Date format.** Choose from **Year/month/day (Y/M/D)**, **Month/day/year (M/D/Y)**, or **Day/month/year (D/M/Y)** formats.
- **Daylight saving time.** Use this to turn daylight saving time **On** or **Off**. Because the date on which DST takes effect has been changed from time to time, if you turn this feature on you may need to monitor your camera to make sure DST has been implemented correctly.

Language

Options: Seventeen different languages

Choose from 17 languages for menu display, choosing from Danish, German, English, Spanish, Finnish, French, Italian, Dutch, Norwegian, Polish, Portuguese, Russian, Swedish, Traditional Chinese, Simplified Chinese, Japanese, or Korean.

Image Comment

Options: Input comment, Attach comment, Done

The **Image comment** option is your opportunity to add a copyright notice, personal information about yourself (including contact info), or even a description of where the image was taken (e.g., Barcelona Photos 2010), although text entry with the Nikon D5000 is a bit too clumsy for doing a lot of individual annotation of your photos. (But you still might want to change the comment each time, say, you change cities during your travels.) The embedded comments can be read by many software programs, including Nikon ViewNX or Capture NX.

The standard text entry screen described earlier in this chapter can be used to enter your comment, with up to 36 characters available. For the copyright symbol, embed a lowercase “c” within opening and closing parentheses: (c). You can enter text by choosing **Input comment**, turn attachment of the comment **On** or **Off** using the **Attach comment** entry, and select **Done** when you’re finished working with comments. If you find typing with a cursor too tedious, you can enter your comment in Nikon Capture NX and upload it to the camera through a USB cable.

Auto Image Rotation

Options: On (default), Off

Turning this setting **On** tells the Nikon D5000 to include camera orientation information in the image file. The orientation can be read by many software applications, including Adobe Photoshop, Nikon ViewNX, and Capture NX, as well as the **Rotate tall** setting in the Playback menu. Turn this feature **Off**, and none of the software applications or Playback’s **Rotate tall** will be able to determine the correct orientation for the image. Nikon notes that only the first image’s orientation is used when shooting continuous bursts; subsequent photos will be assigned the same orientation, even if you rotate the camera during the sequence (which is something I have been known to do myself when shooting sports like basketball).

Image Dust Off Ref Photo

Options: Start, Clean sensor and then start

This menu choice lets you “take a picture” of any dust or other particles that may be adhering to your sensor. The D5000 will then append information about the location of this dust to your photos, so that the **Image dust off** option in Capture NX can be used to mask the dust in the NEF image.

To use this feature, select **Image dust off ref photo**, choose either **Start** or **Clean sensor and then start**, and then press OK. If directed to do so, the camera will first perform a self-cleaning operation by applying ultrasonic vibration to the low-pass filter that resides on top of the sensor. Then, a screen will appear asking you to take a photo of a bright featureless white object 10 cm from the lens (about four inches). Nikon recommends using a lens with a focal length of at least 50mm. Point the D5000 at a solid white card and press the shutter release. An image with the extension .ndf will be created, and can be used by Nikon Capture NX as a reference photo if the “dust off” picture is placed in the same folder as an image to be processed for dust removal.

GPS

Options: Auto meter-off Enable (default), Auto meter-off Disable, Position

This menu entry has options for using the Nikon GP-1 Global Positioning System (GPS) device. It has three options, none of which turn GPS features on or off, despite the misleading enable and disable nomenclature (what you’re enabling and disabling is the automatic exposure meter turn-off):

- **Auto meter-off Enable.** Reduces battery drain by enabling turning off exposure meters while using the GP-1 after the time specified in CSM **c2: Auto off timers** (discussed earlier in this chapter) has elapsed. When the meters turn off, the GP-1 becomes inactive and must reacquire at least three satellite signals before it can begin recording GPS data once more.
- **Auto meter-off Disable.** Causes exposure meters to remain on while using the GP-1, so that GPS data can be recorded at any time, despite increased battery drain.
- **Position.** This is an information display, rather than a selectable option. It appears when the GP-1 is connected and receiving satellite positioning data. It shows the latitude, longitude, altitude, and Coordinated Universal Time (UTC) values.

Eye-Fi Upload

Options: Enable (default), Disable

This option (not shown in the figure) is shown only when a compatible Eye-Fi memory card is being used in the D5000. The Eye-Fi card looks like an ordinary SDHC memory card, but has built-in WiFi capabilities, so it can be used to transmit your photos as they are taken directly to a computer over a WiFi network.

Firmware Version

Displayed information: Current firmware version installed

You can see the current firmware release in use in this menu listing; you must scroll to view the menu entry that provides the information.

Retouch Menu

The Retouch menu has 16 entries, with eight shown on its first screen (see Figure 4.11). These include:

- D-Lighting
- Red-eye correction
- Trim
- Monochrome
- Filter effects
- Color balance
- Small picture
- Image overlay
- NEF (RAW) Processing
- Quick Retouch
- Straighten
- Distortion control
- Fisheye
- Color outline
- Perspective control
- Stop-motion movie

This menu allows you to create a new copy of an existing image with trimmed or retouched characteristics. You can apply D-Lighting, remove red-eye, create a monochrome image, apply filter effects, rebalance color, overlay one image on another, and compare two images side-by-side. Just select a picture during Playback mode, press OK to produce the Retouch menu screen, and then scroll

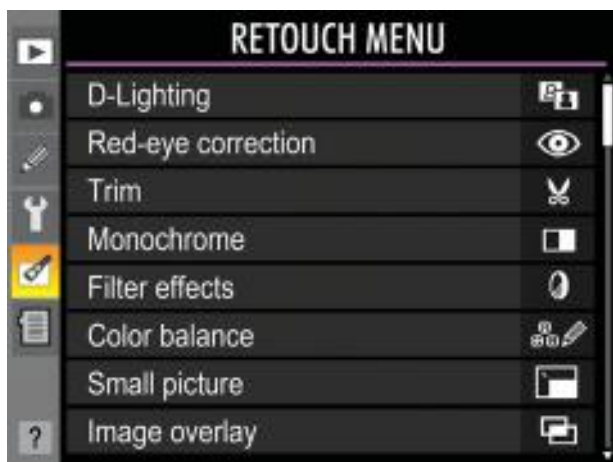


Figure 4.11

The Retouch menu allows simple in-camera editing.

down to one of the retouching options. You can also go directly to the Retouch menu, select a retouching feature, and then choose a picture from the standard D5000 picture selection screen.

The Retouch menu is most useful when you want to create a modified copy of an image on the spot, for immediate printing or e-mailing without first importing into your computer for more extensive editing. You can also use it to create a JPEG version of an image in the camera when you are shooting RAW-only photos.

While you can retouch images that have already been processed by the Retouch menu, you may notice some quality loss. Some retouching options are mutually exclusive: you can't apply **Quick retouch** to images that have had **D-Lighting** applied, and vice versa. Once you've applied a filter effect, you can't apply a second filter effect to a copied image, except for those given the **Cross screen** effect. **Quick retouch**, **D-Lighting**, **Red-eye correction**, and **Filter effects** (except for **Cross screen**) can't be applied to monochrome copies. Use of the **Trim** or **Small picture** options create copies that cannot be further modified in the Retouch menu. There are quite a few additional conflicts that you may discover as you work with this menu. In real life, few of us do a lot of retouching to images in the camera; when things start to get complicated, it's a better idea to work on them in your image editor.

To create a retouched copy of an image:

1. While browsing among images in Playback mode, press OK when an image you want to retouch is displayed on the screen. The Retouch menu will pop up, and you can select a retouching option.
2. From the Retouch menu, select the option you want and press the multi selector right button. The Nikon D5000's standard image selection screen appears. Scroll among the images as usual with the left/right multi selector buttons, press the Zoom In button to examine a highlighted image more closely, and press OK to choose that image.
3. Work with the options available from that particular Retouch menu feature and press OK to create the modified copy, or Playback to cancel your changes.
4. The retouched image will bear a filename that reveals its origin. For example, if you make a **Small picture** version of an image named DSC_0112.jpg, the reduced-size copy will be named SSC_0113.jpg. Copies incorporating other retouching features would be named CSC_0113.jpg instead.

D-Lighting

Options: High, Normal, Low

This option brightens the shadows of pictures that have already been taken. It is a useful tool for backlit photographs or any image with deep shadows with important detail. Once you've selected your photo for modification, you'll be shown side-by-side images with the unaltered version on the left, and your adjusted version on the right. Press the multi selector's up/down buttons to choose from **High**, **Normal**, or **Low** corrections. Press the Zoom In button to magnify the image. When you're happy with the corrected image on the right, compared to the original on the left, press OK to save the copy to your memory card (see Figure 4.12).



Figure 4.12

Use the D-Lighting feature to brighten dark shadows while producing minimal changes in the highlights.

Red-Eye Correction

Options: Correct red-eye

This Retouch menu tool can be used to remove the residual red-eye look that remains after applying the Nikon D5000's other remedies, such as the red-eye reduction lamp. (You can use the red-eye tools found in most image editors, as well.) Although your Nikon D5000 has a fairly effective red-eye reduction flash mode, it cannot totally *eliminate* the red-eye effects that occur when an electronic flash bounces off the retinas of the eye and into the camera lens. Animals seem to suffer from yellow or green glowing pupils, instead. The effect is worst under low-light conditions (exactly when you might be using a flash) as the

pupils expand to allow more light to reach the retinas. The best you can hope for is to *reduce* or minimize the red-eye effect.

The best way to truly eliminate red-eye is to raise an external flash up off the camera so its illumination approaches the eye from an angle that won't reflect directly back to the retina and into the lens. If you're working with your D5000's built-in flash, your only recourse may be to switch on the red-eye reduction flash mode. That causes a lamp on the front of the camera to illuminate with a half-press of the shutter release button, which may result in your subjects' pupils contracting, decreasing the amount of the red-eye effect. (You may have to ask your subject to look at the lamp to gain maximum effect.)

If your image still displays red-eye effects, you can use the Retouch menu to make a copy with red-eye reduced further. First, select a picture that was taken with flash (non-flash pictures won't be available for selection). After you've selected the picture to process, press OK. Magnify the image with the Zoom In button, scroll around the zoomed image with the multi selector buttons, and zoom out with the Zoom Out button.

When you are finished examining the image, press OK again. The D5000 will look for red-eye, and, if detected, it will create a copy that has been processed to reduce the effect. If no red-eye is found, a copy is not created.

Trim

Options: 3:2, 4:3, 5:4, 1:1, and 16:9 aspect ratios

This option creates copies in specific sizes based on the final size you select, chosen from among 3:2, 4:3, 5:4, 1:1, and 16:9 aspect ratios (proportions). You can use this feature to create smaller versions of a picture for e-mailing without the need to first transfer the image to your own computer. If you're traveling, create your smaller copy here, insert the memory card in a card reader at an Internet café, your library's public computers, or some other computer, and e-mail the reduced-size version. Just follow these steps:

1. **Select your photo.** Choose **Trim** from the Retouch menu. You'll be shown the standard Nikon D5000 image selection screen. Scroll among the photos using the multi selector left/right buttons, and press OK when the image you want to trim is highlighted. While selecting, you can temporarily enlarge the highlighted image by pressing the Zoom In button.
2. **Choose your aspect ratio.** Rotate the main command dial to change from 3:2, 4:3, 5:4, 1:1, and 16:9 aspect ratios. These proportions happen to correspond to the proportions of common print sizes, including the two most popular sizes: 4 × 6-inches (3:2) and 8 × 10-inches (5:4). (See Table 4.1.)

Table 4.1 Trim Sizes	
Aspect Ratio	Sizes Available
3:2	3424 × 2280, 2560 × 1704, 1920 × 1280, 1280 × 856, 960 × 640, 640 × 424
4:3	3424 × 2568, 2560 × 1920, 1920 × 1440, 1280 × 960, 960 × 720, 640 × 480
5:4	3216 × 2568, 2400 × 1920, 1808 × 1440, 1200 × 960, 986 × 720, 608 × 480
1:1	2560 × 2660, 1920 × 1920, 1440 × 1440, 960 × 960, 720 × 720, 480 × 480
16:9	3424 × 1920, 2560 × 1440, 1920 × 1080, 1280 × 720, 960 × 536, 640 × 360

- 3. **Crop in on your photo.** Press the Zoom In button to crop in on your picture. The pixel dimensions of the cropped image at the selected proportions will be displayed in the upper-left corner (see Figure 4.13) as you zoom. The current framed size is outlined in yellow within an inset image in the lower-right corner.
- 4. **Move cropped area within the image.** Use the multi selector left/right and up/down buttons to relocate the yellow cropping border within the frame.



Figure 4.13
The Trim feature of the Retouch menu allows in-camera cropping.

5. **Save the cropped image.** Press OK to save a copy of the image using the current crop and size, or press the Playback button to exit without creating a copy. Copies created from JPEG Fine, Normal, or Standard have the same **Image quality** setting as the original; copies made from RAW files or any RAW+JPEG setting will use JPEG Fine compression.

Monochrome

Options: Black-and-white, Sepia, Cyanotype

This Retouch choice allows you to produce a copy of the selected photo as a black-and-white image, sepia-toned image, or cyanotype (blue-and-white). You can fine-tune the color saturation of the previewed **Sepia** or **Cyanotype** version by pressing the multi selector up button to increase color richness, and the down button to decrease saturation. When satisfied, press OK to create the monochrome duplicate.

Filter Effects

Options: Skylight, Warm, Red/Green/Blue intensifiers, Cross screen, Color balance

Add effects somewhat similar to photographic filters with this tool. You can choose from among six different choices:

- **Skylight.** This option makes the image slightly less blue.
- **Warm.** Use this filter to add a rich warm cast to the duplicate.
- **Red, Green, Blue intensifiers.** These three options make the red, green, and blue hues brighter, respectively. Use them to brighten a rose, intensify the greens of foliage, or deepen the blue of the sky.
- **Cross screen.** This option adds radiating star points to bright objects—such as the reflection of light sources on shiny surfaces. You can choose four different attributes of your stars:
 - **Number of points.** You can select from four, six, or eight points for each star added to your image.
 - **Filter amount.** Select from three different intensities, represented by two, three, and four stars in the menu (this doesn't reflect the actual number of stars in your image, which is determined by the number of bright areas in the photo).
 - **Filter angle.** Select from three different angles: steep, approximately 45 degrees, and a shallower angle.
 - **Length of points.** Three different lengths for the points can be chosen: short, medium, and long.

Color Balance

Options: Green-magenta/Blue-amber bias

This option produces the screen shown in Figure 4.14, with a preview image of your photo. Use the multi selector up/down (green/magenta) and left/right buttons (blue/amber) to bias the color of your image in the direction of the hues shown on the color square below the preview.

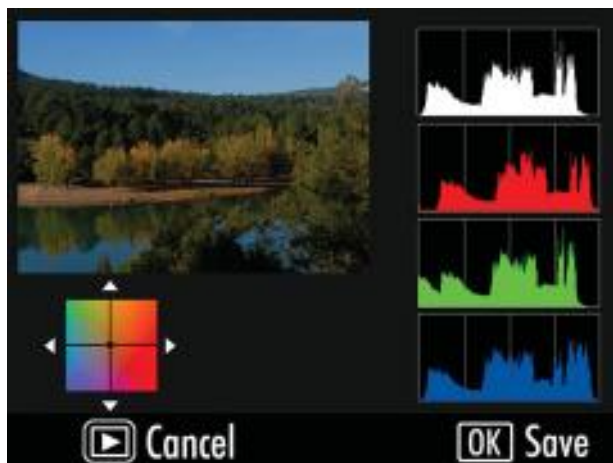


Figure 4.14

Press the multi selector buttons to bias the color in the direction you prefer.

Small Picture

Options: 640 × 480, 320 × 240, 160 × 120 pixels

This Retouch menu option allows you to create small copies of full images (without cropping or trimming) at resolutions of 640 × 480, 320 × 240, or 160 × 120. All three of these optional small sizes may be useful for e-mailing, website display, or use in presentations on television screens.

To create a **Small picture** copy:

1. Choose **Small picture** from the Retouch menu.
2. Select **Choose size** and specify your preference from among the three available sizes, 640 × 480, 320 × 240, or 160 × 120. Press OK.
3. Next, choose **Select picture** and choose your image using the standard Nikon D5000 image selection screen.
4. Press the up/down button to mark a highlighted image for reduction.

5. You can select more than one picture, marking each with the up/down button. Use the button to unmark any photos if you change your mind.
6. Press OK. You'll see a message: **Create Small Picture? 2 Images.** (Or whatever number of images you have marked.)
7. Press OK to create the small pictures.

Image Overlay

Options: Select images

The **Image overlay** tool allows you to combine two RAW photos (only NEF files can be used) in a composite image that Nikon claims is better than a “double exposure” created in an image-editing application because the overlays are made using RAW data. To produce this composite image, follow these steps:

1. Choose **Image overlay**. The screen shown in Figure 4.15 will be displayed, with the **Image 1** box highlighted.
2. Press OK and the Nikon D5000's image selection screen appears. Choose the first image for the overlay and press OK.
3. Press the multi selector right button to highlight the **Image 2** box, and press OK to produce the image selection screen. Choose the second image for the overlay.
4. By highlighting either the **Image 1** or **Image 2** boxes and pressing the multi selector up/down buttons, you can adjust the “gain,” or how much of the final image will be “exposed” from the selected picture. You can choose from



Figure 4.15

Overlay two RAW images to produce a “double exposure.”

X0.5 (half-exposure) to **X2.0** (twice the exposure) for each image. The default value is 1.0 for each, so that each image will contribute equally to the final exposure.

5. Use the multi selector right button to highlight the **Preview** box and view the combined picture. Press the Zoom In button to enlarge the view.
6. When you're ready to store your composite copy, press the multi selector down button when the Preview box is highlighted to select **Save**, and press OK. The combined image is stored on the memory card.

NEF (RAW) Processing

Options: On (default), Off

The last few Retouch menu options are shown in Figure 4.16. Use this tool to create a JPEG version of any image saved in either straight RAW (with no JPEG version) or RAW+Basic (with a Basic JPEG version). You can select from among several parameters to “process” your new JPEG copy right in the camera.

1. Choose a RAW image. Select **NEF (RAW) processing** from the Retouch menu. You'll be shown the standard Nikon D5000 image selection screen. Use the left/right buttons to navigate among the RAW images displayed. Press OK to select the highlighted image.
2. In the NEF (RAW) processing screen, shown in Figure 4.17, you can use the multi selector up/down keys to select from five different attributes of the RAW image information to apply to your JPEG copy. Choose **Image quality** (Fine, Normal, or Basic), **Image size** (Large, Medium, or Small), **White balance**, **Exposure compensation**, and **Set Picture Control** parameters.

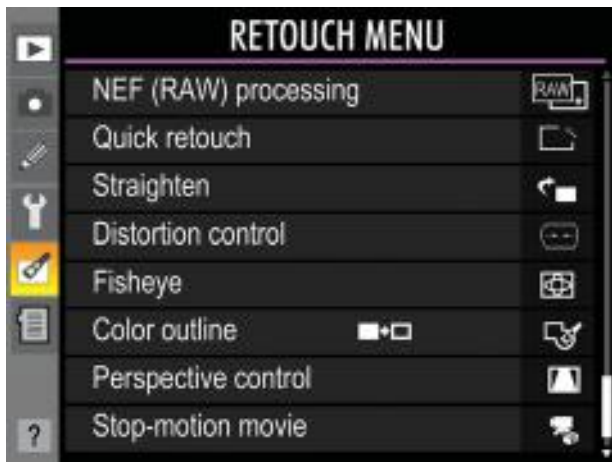


Figure 4.16

More entries in the Retouch menu.



Figure 4.17
Adjust five parameters and then save your JPEG copy from a RAW original file.

Note

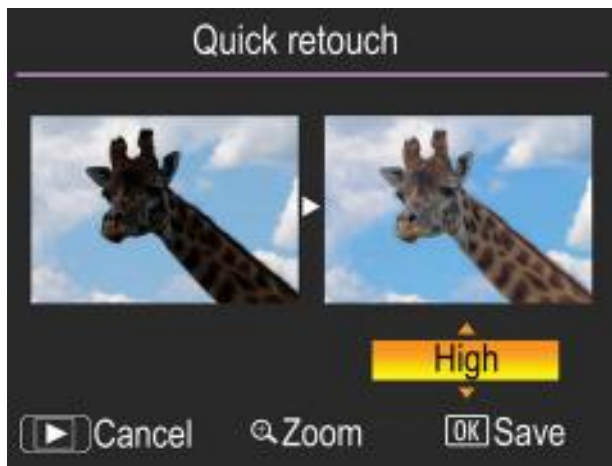
The White balance parameter cannot be selected for images created with the Image overlay tool, and the Preset manual white balance setting can be fine-tuned only with images that were originally shot using the Preset white balance setting. Exposure compensation cannot be adjusted for images taken using Active D-Lighting, and white balance and optimize image settings cannot be applied to pictures taken using any of the Scene modes.

3. Press the Zoom In button to magnify the image temporarily while the button is held down.
4. Press the Playback button if you change your mind, to exit from the processing screen.
5. When all parameters are set, highlight **EXE** (for Execute) and press OK. The D5000 will create a JPEG file with the settings you've specified, and show an **Image saved** message on the LCD when finished.

Quick Retouch

Options: High, Normal, Low

This option brightens the shadows of pictures that have already been taken. Once you've selected your photo for processing, use the multi selector up/down keys in the screen that pops up (see Figure 4.18). The amount of correction that you select (**High**, **Normal**, or **Low**) will be applied to the version of the image

**Figure 4.18**

Quick retouch applies D-Lighting, enhanced contrast, and added saturation to an image.

shown at right. The left-hand version of the image shows the uncorrected version. While working on your image, you can press the Zoom In button to temporarily magnify the original photo. **Quick retouch** brightens shadows, enhances contrast, and adds color richness (saturation) to the image. Press OK to create a copy on your memory card with the retouching applied.

Straighten

Options: Amount of Rotation

This tool produces an aligned picture of the selected image, rotated clockwise up to five degrees in 0.25-degree increments by pressing the right multi selector button. To rotate counterclockwise, use the left multi selector button. The D5000 will trim the image slightly to create a square copy. A set of grid lines provides guidance as you straighten the picture. When finished, press OK to create a copy on your memory card with the retouching applied, or press the Playback button to exit without creating a copy.

Distortion Control

Options: Auto, Manual

This option creates a copy with reduced distortion at the edges of the images shot with type G and D lenses (which include virtually all recent Nikon autofocus lenses). It can correct for both barrel distortion (straight lines closest to the edge of the image appear to bow outwards) and pincushion distortion (straight lines closest to the edge appear to bend inwards).

You can choose **Auto** to let the camera evaluate your image and make the correction, or select **Manual** to specify the correction yourself. Use the right multi selector button to reduce barrel distortion, and the left multi selector button to minimize pincushion distortion. When finished, press OK to create a copy on your memory card with the correction applied, or press the Playback button to exit without creating a copy.

Fisheye

Options: Amount of distortion

Use this tool to create a faux fisheye image, as shown in Figure 4.19. The right multi selector button increases the effect and the amount of the original image that must be cropped out to give you a rectangular image. The left multi selector button reduces the fisheye effect.

When finished, press OK to create a copy on your memory card with the fish-eye effect applied, or press the Playback button to exit without creating a copy.



Figure 4.19

Create a distorted image with fish-eye-like curves.

Color Outline

This option creates a copy of your image in outline form, which Nikon says you can use for “painting.” You might like the effect on its own. It’s a little like the Find Edges command in Photoshop and Photoshop Elements, but you can perform this magic in your camera!

Perspective Control

Reduces the “falling back” effect that appears when you tilt the camera back to take in the top portion of something tall. Similar distortion can occur when you are photographing horizontal subjects and angle the camera so that your subject (say, a long wall) is no longer parallel to the back of the camera. This option creates a copy with some of the distortion corrected (although you’ll probably end up with some of your image area cropped out). Figure 4.20 shows this feature in use with a typical image.

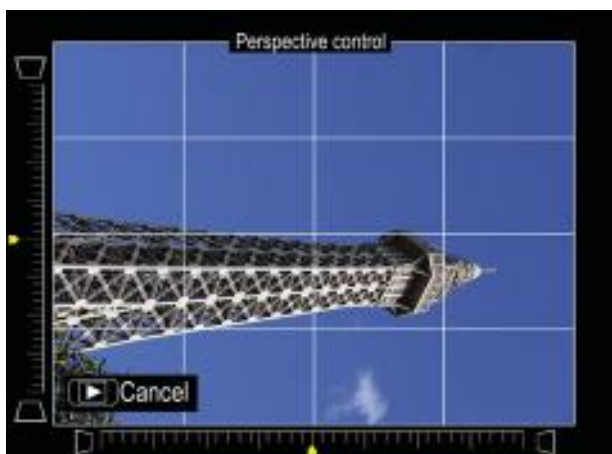


Figure 4.20

The Perspective tool allows correcting some types of distortion.

Stop-Motion Movie

Analyze your golf swing, make flip-book movies, or create animations for your web page using this clever capability. This is one tool readily available in your Nikon D5000 that ordinarily requires an image editor or standalone program in your computer. The movies aren't sophisticated, but they are surprisingly effective.

Your first step is to create a series of frames that can be assembled into a stop-motion movie. You can shoot a series of pictures at 3 fps using your D5000's Continuous shooting mode, if you like. Or, you can take the pictures one at a time. If you were doing clay animation, for example, you'd mount your camera firmly on a tripod, take the first picture in a series, then move your clay figures slightly, take the next picture, and repeat multiple times (a hundred times if you're ambitious!). The Nikon ML-L3 infrared remote control, and the D5000 set to Quick release mode would help you not move the camera between exposures. I'd recommend using a non-variable light source (such as lamps indoors)

and setting the D5000 for manual exposure to ensure that the exposure of each frame is identical.

Then, when you've collected all your shots on a single memory card, it's time to create the stop-motion movie. When you choose this option from the Retouch menu, a screen with three choices appears. Highlight any of the three and press OK:

- **Create movie.** This choice leads you to a submenu where you select the actual frames that will be used to make your movie.
- **Frame size.** Here, you choose frame sizes from **640 × 480** (good for full-screen movies on your computer display or a television); **320 × 240** (for smaller, more compact movies); and **160 × 120** (which produces coarse movies that are not much larger than a postage stamp on most computer screens, but which are better suited for display over the Internet, because their file size is very small).
- **Frame rate.** The frame rate determines how many pictures are displayed each second. The standard for video display is 30 frames per second. The fastest frame rate available for these stop-motion movies is 15 frames per second, which produces a movie that displays a little jerkiness. You can also choose 10 fps, 6 fps, and 3 fps rates, which produce a little less smoothness, but allow for longer movies with a given number of frames to work with.

The **Create movie** screen is the editing and assembly portion of the stop-motion movie tool. You'll see a screen like the one shown in Figure 4.21.

1. All the images available for the movie will be shown in a continuous strip in the top half of the screen. Press the multi selector left/right buttons to move along the strip until you have highlighted the first image in the movie sequence. Press OK to select it.
2. Press the multi selector left/right buttons to locate the last image in the sequence, and press OK to select it. You can include 100 images, in total, between the first and last in the sequence. All selected images will be marked with a check mark.
3. If you like, you can select **Edit** to change the **Start**, **Middle**, or **End** image in your sequence. Modify the **Start** and **End** images to change the length of the sequence. Use the **Middle** editing feature to remove (unmark) images.
4. When satisfied, press **Save**.
5. A screen will appear with options to **Save**, **Preview**, change the **Frame rate**, or **Edit** the movie. It's usually a good idea to preview your movie (it will take a few seconds to create the preview), and then make any additional editing changes.
6. When you're happy with your movie after the preview, choose **Save**.

**Figure 4.21**

Choose the first and last frames of your stop-motion movie here, then either Edit or Save the clip.

Side-by-Side Comparison

Use this option to compare a retouched photo side-by-side with the original from which it was derived. This option is shown on the pop-up menu that appears when you are viewing an image (or copy) full screen and press the OK button.

To use Side-by-side comparison:

1. Press the Playback button and review images in full-frame mode until you encounter a source image or retouched copy you want to compare. The retouched copy will have the retouching icon displayed in the upper-left corner. Press OK.
2. The Retouch menu with **Trim**, **Monochrome**, **Filter effects**, **Small picture**, and **Before and after** appears. (These are the only options that can be applied to an image that has already been retouched.) Scroll down to **Before and after** and press OK.
3. The original and retouched image will appear next to each other, with the retouching options you've used shown as a label above the images, as you can see in Figure 4.22.
4. Highlight the original or the copy with the multi selector left/right buttons, and press the Zoom In button to magnify the image to examine it more closely.
5. If you have created more than one copy of an original image, select the retouched version shown, and press the multi selector up/down buttons to view the other retouched copies. The up/down buttons will also let you view the other image used to create an **Image overlay** copy.
6. When done comparing, press the Playback button to exit.

**Figure 4.22**

You can easily compare an original image and the retouched version side-by-side.

Using My Menu/Recent Settings

Options: Add items, Remove items, Rank items, Choose tab

The last menu in the D5000's main menu screen has two versions: Recent settings and My Menu. The default mode is Recent settings, which simply shows an ever-changing roster of the 20 menu items you used most recently. You'll probably find it more useful to activate the My Menu option instead, which contains only those menu items that you deposit there extracted from the Playback, Shooting, Custom Setting, Setup, and Retouch menus, based on your own decisions on which you use most. Remember that the D5000 always returns to the last menu and menu entry accessed when you press the MENU button. So you can set up My Menu (see Figure 4.23) to include just the items accessed most frequently, and (as long as you haven't used another menu) jump to those items instantly by pressing the MENU button.

Switching back and forth is easy. The My Menu and Recent settings menus each have a menu choice called **Choose tab**. Highlight that entry and press the right multi selector button to view a screen that allows you to activate either the **My Menu** or **Recent settings** menu. Press OK to confirm.

You can add or subtract entries on My Menu at any time, and rank the entries so the ones you access most often are shown at the top of the list. Here's all you need to know to work with My Menu. To add entries to My Menu:

1. Select **My Menu** and choose **Add items**.
2. A list of the available menus will appear. Highlight one and press the multi selector's right button.

**Figure 4.23**

You can include your favorite menu items in the fast-access My Menu.

3. Within the selected menu, choose the menu item you want to add and press OK.
4. The label **Choose position** appears at the top of the My Menu screen. Use the up/down buttons to select a rank among the entries, and press OK to confirm and add the new item.
5. Repeat steps 1-4 if you want to add more entries to My Menu.

To reorder the menu listings:

1. Within the My Menu screen, choose **Rank items**.
2. Use the up/down buttons to select the item to be moved, and press OK.
3. Use the up/down buttons to relocate the selected item and press OK.
4. Repeat steps 2-3 to move additional entries.

To remove entries from the list, you can simply press the Trash button while an item is highlighted in the My Menu screen. To remove multiple items, follow these steps:

1. Within the My Menu screen, choose **Remove items**.
2. A list with checkboxes next to the menu items appears. Scroll down to an item you want to remove and press the multi selector right button to mark its box. If you change your mind, highlight the item and press the right button again to unmark the box.
3. When finished, highlight **Done** and press the OK button.
4. Press OK to confirm the deletion.

Chapter 5

Using the Flash

Your D5000 has a flip-up electronic flash unit built in, but you can also use an external flash (or, “strobe” or “Speedlight”), either mounted on the D5000’s accessory shoe or used off-camera and linked with a cable or triggered by a slave light (which sets off a flash when it senses the firing of another unit). Consider using electronic flash:

- **When you need extra light.** Flash provides extra illumination in dark environments where existing light isn’t enough for a good exposure, or is too uneven to allow a good exposure even with the camera mounted on a tripod.
- **When you don’t need a precise preview of lighting effects.** Although some Nikon brand external units have a modeling flash feature that gives a preview of the strobe’s effects, the “modeling” flash may not give you a precise look at what you’re going to get. Unless you’re using a studio flash with a full-time modeling lamp, electronic flash works best when you are able to visualize its effects in your mind, or don’t need a precise preview.
- **When you need to stop action.** The brief duration of electronic flash serves as a very high “shutter speed” when the flash is the main or only source of illumination for the photo. Your D5000’s shutter speed may be set for 1/200th second during a flash exposure, but if the flash illumination predominates, the *effective* exposure time will be the 1/1,000th to 1/50,000th second or less duration of the flash, because the flash unit reduces the amount of light released by cutting short the duration of the flash. However, if the ambient light is strong enough, it may produce a secondary, “ghost” exposure, as I’ll explain later in this chapter.
- **When you need flexibility.** Electronic flash’s action-freezing power allows you to work without a tripod in the studio (and elsewhere), adding flexibility and speed when choosing angles and positions. Flash units can be easily filtered, and, because the filtration is placed over the light source rather than the lens, you don’t need to use high-quality filter material.

- **When you can use—or counter—flash’s relatively shallow “depth-of-light” (the inverse square law).** Electronic flash units don’t have the sun’s advantage of being located 93 million miles from the subject, and suffer from the effects of their proximity. The *inverse square law* dictates that as a light source’s distance increases from the subject, the amount of light reaching the subject falls off proportionately to the square of the distance. In plain English, that means that a flash or lamp that’s eight feet away from a subject provides only one-quarter as much illumination as a source that’s four feet away (rather than half as much). (See Figure 5.1.) You can *use* this effect to separate subjects located at different distances thanks to the differing amount of illumination each receives. But when you want a larger area blanketed more evenly with illumination, you have to *counter* the effects of the inverse square law, either with supplemental lighting, slow shutter speeds (which allow ambient light to register along with the flash), bouncing an external flash off a ceiling or other surface to spread the light over a wider area, or by repositioning your subjects so all are within your flash’s depth-of-light coverage.

Flash Control

The Nikon D5000’s built-in flash has two modes, **TTL** (in two variations) and **Manual**. You can choose between TTL and Manual modes using Custom Setting menu setting **e1: Flash Cntrl for Built-in Flash**, as described in Chapter 4. Note the label on this menu listing changes to **Optional Flash** when



Figure 5.1 A light source that is twice as far away provides only one-quarter as much illumination.

an SB-400 external flash is mounted on the D5000 and powered up. You can then make the same flash mode changes for the SB-400 as you can for the built-in flash. Other Nikon external flash units, such as the Nikon SB-900, have additional exposure modes, which I'll discuss later in this chapter. Your flash control options are as follows:

- **TTL.** When the built-in flash is triggered, the D5000 first fires a pre-flash and measures the light reflected back and through the lens to calculate the proper exposure when the full flash is emitted a fraction of a second later. Either **i-TTL Balanced Fill-Flash** or **Standard i-TTL Fill-Flash** exposure calculation modes are used. I'll explain these modes next.
- **Manual.** You can set the level of the built-in flash from full power to 1/32 power. A flash icon blinks in the viewfinder and on the shooting information display when you're using Manual mode, and the built-in flash has been flipped up.

Flash Metering Mode

You don't select the way your flash meters the exposure directly; the two modes, **i-TTL Balanced Fill Flash** and **Standard i-TTL Fill-Flash**, are determined by the camera metering mode—Matrix, Center-weighted, or Spot—that you select. Indeed, the built-in flash in the Nikon D5000, as well as external flash units attached to the camera, use the same three metering modes that are available for continuous light sources: Matrix, Center-weighted, and Spot. Choice of a metering mode determines how the flash reacts to balance the existing light with the light from the electronic unit:

- **i-TTL Balanced Fill-Flash.** This flash mode is used automatically when you choose Matrix or Center-weighted exposure metering. The Nikon D5000 measures the available light and then adjusts the flash output to produce a natural balance between main subject and background. This setting is useful for most photographic situations.
- **Standard i-TTL Fill-Flash.** This mode is activated when you use Spot metering or choose the standard mode with an external flash unit's controls. The flash output adjusted only for the main subject of your photograph, and the brightness of the background is not factored in. Use this mode when you want to emphasize the main subject at the expense of proper exposure for the background.

Choosing a Flash Sync Mode

The Nikon D5000 has five flash sync modes that determine when and how the flash is fired (as I'll explain shortly). They are selected from the information edit

screen, or by holding down the flash button on the front of the camera lens housing while rotating the command dial. In both cases, the mode chosen appears in the information edit screen as the selection is made.

Not all sync modes are available with all exposure modes. Depending on whether you're using Scene modes, or Program, Shutter-priority, Aperture-priority, or Manual exposure modes, one or more of the following sync modes may not be available. I'm going to list the sync options available for each exposure mode separately, although that produces a little duplication among the options that are available with several exposure modes. However, this approach should reduce the confusion over which sync method is available with which exposure mode.

In Program and Aperture-priority modes you can select these flash modes:

- **Front-curtain sync/fill flash.** In this mode, represented by a lightning bolt symbol, the flash fires as soon as the front curtain opens completely. The shutter then remains open for the duration of the exposure, until the rear curtain closes. If the subject is moving and ambient light levels are high enough, the movement will cause a secondary “ghost” exposure that appears to be a stream of light advancing ahead of the flash exposure of the same subject.
- **Rear-curtain sync.** With this setting, the front curtain opens completely and remains open for the duration of the exposure. Then, the flash is fired and the rear curtain closes. If the subject is moving and ambient light levels are high enough, the movement will cause a secondary “ghost” exposure that appears to stream *behind* the flash exposure. Figure 5.2 compares the

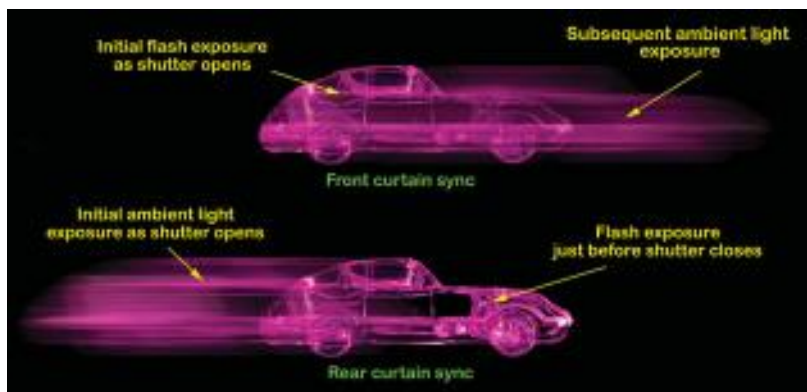


Figure 5.2 First-curtain sync produces an image that trails in front of the flash exposure (top), while second-curtain sync creates a more “natural looking” trail behind the flash image.

appearance of ghost exposures when using front-curtain and rear-curtain sync. In Program and Aperture-priority modes, the D5000 will combine rear-curtain sync with slow shutter speeds (just like slow sync, discussed below) to balance ambient light with flash illumination. (It's best to use a tripod to avoid blur at these slow shutter speeds.)

- **Red-eye reduction.** In this mode, there is a one-second lag after pressing the shutter release before the picture is actually taken, during which the D5000's red-eye reduction lamp lights, causing the subject's pupils to contract (assuming they are looking at the camera), and thus reducing potential red-eye effects. Don't use with moving subjects or when you can't abide the delay.
- **Slow sync.** This setting allows the D5000 in Program and Aperture-priority modes to use shutter speeds as slow as 30 seconds with the flash to help balance a background illuminated with ambient light with your main subject, which will be lit by the electronic flash. You'll want to use a tripod at slower shutter speeds, of course.
- **Red-eye reduction with slow sync.** This mode combines slow sync with the D5000's red-eye reduction behavior when using Program or Aperture-priority modes.

In Shutter-priority and Manual exposure modes, you can select the following three flash synchronization settings:

- **Front-curtain sync/fill flash.** This setting should be your default setting. This mode is also available in Program and Aperture-priority mode, as described above, and, with high ambient light levels, can produce ghost images, discussed below.
- **Red-eye reduction.** This mode, with its one-second lag and red-eye lamp flash, is described above.
- **Rear-curtain sync.** As noted previously, in this sync mode, the front curtain opens completely and remains open for the duration of the exposure. Then, the flash is fired and the rear curtain closes. If the subject is moving and ambient light levels are high enough, the movement will cause that "ghost" exposure that appears to be trailing the flash exposure.

In **Auto**, **Portrait**, **Child**, **Close-up**, **Party**, and **Pet scene** modes, the following flash sync options are available:

- **Auto.** This setting is the same as front-curtain sync, but the flash pops up automatically in dim lighting conditions.
- **Red-eye reduction auto.** In this mode, there is a one-second lag after pressing the shutter release before the picture is actually taken, during which the

D5000's red-eye reduction lamp lights, causing the subject's pupils to contract (assuming they are looking at the camera), and thus reducing potential red-eye effects. Don't use with moving subjects or when you can't abide the delay.

- **Flash off.** This is not really a sync setting, although it is available from the same selection screen. It disables the flash for those situations in which you absolutely do not want it to pop up and fire.

In **Night portrait** mode, only slow synchronization flash and flash off modes are available:

- **Auto slow sync.** This setting allows the D5000 to select shutter speeds as slow as 30 seconds with the flash to help balance a background illuminated with ambient light with your main subject, which will be lit by the electronic flash. Best for shooting pictures at night when the subjects in the foreground are important, and you want to avoid a pitch-black background. I recommend using a tripod in this mode.
- **Auto red-eye reduction with slow sync.** Another mode that calls for a tripod, this sync setting mode combines slow sync with the D5000's red-eye reduction pre-flash. This is the one to use when your subjects are people who will be facing the camera.
- **Flash off.** Disables the flash in museums, concerts, religious ceremonies, and other situations in which you absolutely do not want it to pop up and fire.

When using the **Food** scene mode, you can't change sync modes; only **Fill Flash** mode is available. Other Scene modes not mentioned, such as **Silhouette**, disable the flash, and so have no sync mode options.

Avoiding Sync Speed Problems

Using a shutter speed faster than 1/200th second can cause problems. To obtain shutter speeds faster than 1/200th second, the D5000 exposes only part of the sensor at one time, by starting the second curtain on its journey before the first curtain has completely opened. That effectively provides a briefer exposure as a slit that's narrower than the full height of the sensor passes over the surface of the sensor. If the flash were to fire during the time when the first and second curtains partially obscured the sensor, only the slit that was actually open would be exposed.

You'd end up with only a narrow band, representing the portion of the sensor that was exposed when the picture is taken. For shutter speeds *faster* than 1/200th second, the second curtain begins moving *before* the first curtain reaches

the top of the frame. As a result, a moving slit, the distance between the first and second curtains, exposes one portion of the sensor at a time as it moves from the top to the bottom. If the flash is triggered while this slit is moving, only the exposed portion of the sensor will receive any illumination. You end up with a photo like the one shown in Figure 5.3.



Figure 5.3

If a shutter speed faster than 1/200th second is used, you can end up photographing only a portion of the image.

Guide Numbers

Guide numbers, usually abbreviated GN, are a way of specifying the power of an electronic flash in a way that can be used to determine the right *f/stop* to use at a particular shooting distance and ISO setting. In fact, before automatic flash units became prevalent, the GN was actually used to do just that. A GN is usually given as a pair of numbers for both feet and meters that represent the range at ISO 100. For example, the Nikon D5000's built-in flash has a GN in i-TTL mode of 18/59 (meters/feet) at ISO 200. To calculate the right exposure at that ISO setting, you'd divide the guide number by the distance to arrive at the appropriate *f/stop*.

Using the D5000's built-in flash as an example, at ISO 100 with its GN of 39, if you wanted to shoot a subject at a distance of 10 feet, you'd use *f/4* (39 divided by 10), or, in practice, *f/4.0*. At 5 feet, an *f/stop* of *f/8* would be used. Some quick mental calculations with the GN will give you any particular electronic flash's range. You can easily see that the built-in flash would begin to peter out at about 13 feet if you stuck to the lowest ISO of 100, because you'd need an aperture of *f/2.8*. Of course, in the real world you'd probably bump the sensitivity up to a setting of ISO 800 so you could use a more practical *f/8* at 13 feet, and the flash would be effective all the way out to 20 feet or more at wider *f/stops*.

Today, guide numbers are most useful for comparing the power of various flash units, rather than actually calculating what exposure to use. You don't need to be a math genius to see that an electronic flash with a GN in feet of, say, 131 at ISO 100 would be *a lot* more powerful than your built-in flash. At ISO 100, you could use *f*/5.6 to shoot as far as 22 feet.

Working with Nikon Flash Units

If you want to work with dedicated Nikon flash units, at this time you have six choices: the D5000's built-in flash, the Nikon SB-900, SB-700, SB-600 (now discontinued), SB-400 on-camera flash units, and the SB-R200 wireless remote flash.

In automatic mode, the built-in flash has a guide number of 12/39 (meters/feet) at ISO 100, and must be activated by manually flipping it up when not using one of the DVP/Scene modes that feature automatic pop-up. This flash is powerful enough to provide primary direct flash illumination when required, but can't be angled up for diffuse bounce flash off the ceiling. It's useful for balanced fill flash, and can operate in Commander mode, which allows the built-in flash to trigger one or more off-camera flash units. You can use Manual flash mode and CSM **e1: Flash Cntrl for Built-in Flash** to dial down the intensity of the built-in flash to 1/32 power.

Because the built-in flash draws its power from the D5000's battery, extensive use will reduce the power available to take pictures. For that reason alone, use of an external flash unit can be a good idea when you plan to take a lot of flash pictures.

The Nikon SB-900, SB-700, discontinued SB-600, and entry-level SB-400 are more powerful than the built-in flash, and each has the advantage of elevating the flash unit above the lens to reduce red-eye effects. The SB-900 is currently the flagship of the Nikon flash line up, and has a guide number of 34/111.5 (meters/feet) when the "zooming" flash head (which can be set to adjust the coverage angle of the lens) is set to the 35mm position. It has features not found in the D5000's flash unit, such as Commander mode, repeating flash, modeling light, and a selectable flash output down to 1/128th power, along with some extra capabilities.

For example, you can angle the flash and rotate it to provide bounce flash. It includes additional, non-through-the-lens exposure modes, thanks to its built-in light sensor, and can "zoom" and diffuse its coverage angle to illuminate the field of view of lenses from 8mm (with the wide-angle/diffusion dome attached) to 120mm on a D5000. The SB-900 also has its own powerful focus assist lamp to aid autofocus in dim lighting, and has reduced red-eye effects simply because

the unit, when attached to the D5000, is mounted in a higher position that tends to eliminate reflections from the eye back to the camera lens.

The SB-700 and SB-600 have lower guide numbers, but share many of the SB-900's features, including zoomable flash coverage equal to the field of view of a 16-56mm lens on the D5000 (24-85mm settings with a full-frame camera), and 14mm with a built-in diffuser panel. Each has a built-in modeling flash feature, but lacks repeating flash, accessory filters, and an included flash diffuser dome, which can be purchased separately. Other differences include

The entry-level SB-400 is a good choice for most Nikon D5000 applications if you don't need flash very often. It's built specifically for entry-level Nikon cameras like the D40 or D5000, and has a limited, easy-to-use feature set. It has a limited ISO 100 guide number of 21/68 at the 18mm zoom-head position. It tilts up for bounce flash to 90 degrees, with click detents at the 0, 60, 75, and 90 degree marks. Unless you feel the need for an emergency flash or fill-flash unit that's only slightly more powerful than the D5000's built-in flash, for the most flexibility, you might want to consider the SB-700.

The Nikon SB-R200 is a specialized wireless-only flash that's especially useful for close-up photography, and is often purchased in pairs for use with the Nikon R1 and R1C1 Wireless Close-Up Speedlight systems. Its output power is low at 10/33 (meters/feet) for ISO 100 as you might expect for a unit used to photograph subjects that are often inches from the camera. It has a fixed coverage angle of 78 degrees horizontal and 60 degrees vertical, but the flash head tilts down to 60 degrees and up to 45 degrees (with detents every 15 degrees in both directions). In this case, "up" and "down" have a different meaning, because the SB-R200 can be mounted on the SX-1 Attachment Ring mounted around the lens, so the pair of flash units are on the sides and titled towards or away from the optical axis. It supports i-TTL, D-TTL, TTL (for film cameras), and Manual modes.

Flash Techniques

This next section will discuss using specific features of the Nikon D5000's built-in flash, as well as those of the Nikon dedicated external flash units.

Using the Zoom Head

External flash zoom heads can adjust themselves automatically to match lens focal lengths in use reported by the D5000 to the flash unit, or you can adjust the zoom head position manually. With flash units prior to the SB-900, automatic zoom adjustment wasted some of your flash's power, because the flash unit

assumed that the focal length reported comes from a full-frame camera. Because of the 1.5X crop factor, the flash coverage when the flash is set to a particular focal length was wider than is required by the D5000's cropped image. The SB-900 and SB-700, on the other hand, automatically determine whether your camera is an FX-format, full-frame model or is a DX ("cropped sensor") model like the Nikon D5000, and adjusts coverage angle to suit.

You can manually adjust the zoom position yourself, if you want the flash coverage to correspond to something other than the focal length in use. Just press the Zoom button on the SB-900, and turn the selector dial clockwise to increase the zoom value, or counterclockwise to decrease the zoom value. You can also adjust the zoom position by repeatedly pressing the zoom button.

Flash Modes

The TTL automatic flash modes available for the SB-900 and SB-700 are as follows:

- **AA:** Auto Aperture flash. The Speedlight uses a built-in light sensor to measure the amount of flash illumination reflected back from the subject, and adjusts the output to produce an appropriate exposure based on the ISO, aperture, focal length, and flash compensation values set on the D5000. This setting on the flash can be used with the D5000 in Program or Aperture-priority modes.
- **A:** Non-TTL auto flash. The Speedlight's sensor measures the flash illumination reflected back from the subject, and adjusts the output to provide an appropriate exposure. This setting on the flash can be used when the D5000 is set to Aperture-priority or Manual modes. You can use this setting to manually "bracket" exposures, as adjusting the aperture value of the lens will produce more or less exposure.
- **GN:** Distance priority manual. You enter a distance value, and the SB-900 adjusts light output based on distance, ISO, and aperture to produce the right exposure in either Aperture-priority or Manual exposure modes. Press the Mode button on the flash until the GN indicator appears, then press the SEL button to highlight the distance display, using the plus and minus buttons to enter the distance value you want (from 1 to 65.6 feet, or 0.3 to 20 meters). The SB-900 and SB-700 will indicate a recommended aperture, which you then set on the lens mounted on the D5000.
- **M:** Manual flash. The flash fires at a fixed output level. Press the Mode button until M appears on the SB-900's LCD panel. Press the SEL button and the plus or minus buttons to increase or decrease the output value of the flash. Use the table in the flash manual to determine a suggested aperture

setting for a given distance. Then, set that aperture on the D5000 in either Aperture-priority or Manual exposure modes. (You can also use manual flash with the D5000's built-in unit by choosing a flash level in CSM#e1, as described in Chapter 4, and calculating the appropriate aperture.) (Good luck. I use test shots to calculate the *f*/stop, myself.)

- **RPT:** Repeating flash. The flash fires repeatedly to produce a multiple flash strobing effect. With the SB-900, press the Mode button and rotate the selector dial to display RPT. Set flash output level with **Function button 1** and the selector dial, and choose the number of flashes with the **Function button 2** and the selector dial. Finally, press **Function button 3** and rotate the selector dial to choose the frequency.

BURN OUT

When using repeating flash with the built-in flash or the SB-900, or *any* large number of consecutive flashes in any mode (more than about 15 shots at full power), allow the flash to cool off (Nikon recommends a 10-minute time out) to avoid overheating the flash. The SB-900 will signal you with a warning chime that rings twice when it's time for a cooling-off period. The flash will actually disable itself, if necessary, to prevent damage. The SB-700 has improved burn-out protection.

Working with Wireless Commander Mode

The D5000's built-in flash cannot be set to Commander mode and used to control other compatible flash units. You'll need to use an external flash like the Nikon SB-900 or SB-700 to communicate with and trigger other flash units. Nikon offers a unit called the SU-800, which is a Commander unit that has no built-in visible flash, and which controls other units using infrared signals.

The SU-800 has several advantages. It's useful for cameras like the D3s and D3x, which have no built-in flash to function in Commander mode, or with cameras that don't have Commander mode built into their internal flash, like the D5000. Another advantage the SU-800 has over the D5000's built-in flash is its "reach." Because it uses IR illumination rather than visible light to communicate with remote flashes, the infrared burst can be much stronger, doubling its effective control range to 66 feet.

Each remote flash unit can also be set to one of three groups (A, B, or C), so you can set the exposure compensation and exposure mode of each group separately.

For example, one or more flashes in one group can be reduced in output compared to the flashes in the other group, to produce a particular lighting ratio of effect. You'll find instructions for setting exposure mode, channel, and compensation next (for the built-in flash).

Setting Commander and Remote Modes for the SB-900

Setting modes for the SB-900 has been greatly simplified, compared to the previous SB-800. Just rotate the On/Off/Wireless mode switch to the Remote or Master positions. In Remote mode, the SB-900 will be triggered by the Commander flash unit in its group. In Master mode, the SB-900 will serve as the trigger for the other flash units in a group. (The SB-700 has similar features, but it wasn't available until several months after this book was published, so I haven't tested it.)

You'll want to tell the SB-900 which Channel to use, and which Group it belongs to so that it responds to/controls the other units in its group. You'll need to do this separately for each of the SB-900 units you are working with, if you're using more than one. Here are the (confusing) steps to follow (I recommend doing several dry runs to see how setting up multiple flashes works before trying it "live."):

1. On the master flash, press **Function Button 1** to highlight **M (Master)**.
2. Press the Mode button, then spin the selector dial to choose the flash mode you want to use for that flash unit, from among **TTL**, **A** (Auto Aperture), **M** (Manual), or **- -**. Then, press OK.

Tip

At the **- -** setting, the master flash is disabled; it will trigger the other units, but its flash won't contribute to the exposure—except if you're shooting very close to the subject using a high ISO setting. Tilt or rotate the flash head away from your subject to minimize this spill-over effect.

3. Press **Function Button 2**, and rotate the selector dial to choose the flash compensation level. The amount of EV correction appears at the right side, opposite the master flash's mode indicator.
4. Press **Function Button 1** to move on to the **Group Selection** option. Press OK to choose **Group A**, or rotate the selector dial to choose **Group B** or **C**, then press OK to confirm the group you've chosen.
5. If you're using additional SB-900 flash units with this master flash, set their flash modes and exposure compensation individually by repeating Steps 2, 3, and 4 with the master flash.

6. If you'll be using even more SB-900 flash units, set up those groups as you did for Group A, but specify the group name you'll be using for the additional units (either B or C).
7. Once the modes for all the flash units have been set on the master flash, press **Function Button 2** and rotate the selector dial to set a channel number that the master flash will use to control its groups.
8. Now take each of the remote flash units and set the correct group and channel number you want to use. Just press **Function Button 1** on each remote flash, and rotate the selector dial to specify the group name. Press OK. Then press **Function Button 2** and rotate the selector dial to choose the channel number, and then press the OK button. You're all set!

Connecting External Flash

You have three basic choices for linking an external flash unit to your Nikon D5000. They are as follows:

- **Mount on the accessory shoe.** Sliding a compatible flash unit into the Nikon D5000's accessory shoe provides a direct connection. With a Nikon dedicated flash, all functions of the flash are supported.
- **Connect to the accessory shoe with a cable.** The Nikon SC-28 and SC-29 TTL coiled remote cords have an accessory shoe on one end of a nine-foot cable to accept a flash, and a foot that slides into the camera accessory shoe on the other end, providing a link that is the same as when the flash is mounted directly on the camera. The SC-29 version also includes a focus assist lamp, like that on the camera and SB-900.
- **Multi-flash cables.** The Nikon SC-27/SC-26 TTL Multi-Flash Sync Cords can be used to connect TTL flash units to each other or through the AS-10 TTL Multi-Flash Adapter or SC-28 TTL Remote Cord for multi-flash operation. However, this three-pin connector does not support i-TTL or D-TTL operation. You may wish to use it with older Nikon flash units.
- **Wireless link.** An external Nikon electronic flash can be triggered by another Master flash such as the Nikon SB-900 in Commander mode or by the SU-800 infrared unit. If you don't mind setting exposure manually, many non-Nikon flash units have built-in "slave" sensors to allow them to be triggered by any other flash unit. Such flash may have both "digital" and "non-digital" modes (sometimes assigned other names). In digital mode, the slave flash will ignore the pre-flash emitted by units like the Nikon Speedlights, and only trigger when the second, main flash burst occurs.

Using Flash Exposure Compensation

If you are using Program, Shutter-priority, Aperture-priority, or Manual exposure modes, you can manually add or subtract exposure to the flash exposure calculated by the D5000, using the quick settings screen. The option is in the bottom row of the screen, third from the left. Press the OK button, and then press the up/down directional buttons on the multi selector to make adjustments from -3EV to $+1\text{EV}$ in $1/3\text{ EV}$ increments. As with ordinary exposure compensation, the adjustment you make remains in effect until you zero it out by returning to the quick settings screen.

Chapter 6

Shooting D-Movies

The Nikon D5000 can shoot movies up to 2GB in file size while the camera is in Live View mode. Shooting stills and movies in Live View is easy. Before you start, you can check your Movie settings in the Shooting menu, as described in Chapter 3, or just forge ahead with the current settings by following these steps to shoot either movies or still photographs in Live View mode:

1. **Press the LV button.** If you're shooting in A or M exposure modes, set the aperture first. Then, activate Live View by pressing the button (above the multi selector). The D5000 can be hand-held or mounted on a tripod. (Using a tripod mode makes it easier to obtain and keep sharp focus.) You can exit Live View at any time by pressing the LV button again.
2. **Zoom in/out.** Check your view by pressing the Zoom In button (located at the lower-left corner next to the color LCD). Five levels of magnification are available, up to 6.7X zoom. A navigation box appears in the lower right of the LCD with a yellow box representing the portion of the image zoomed. Use the multi selector keys to change the zoomed area within the full frame. Press the Zoom Out button to zoom out again.
3. **Focus.** Press the shutter release halfway to autofocus, or use manual focus, as described in the section that follows this one. Note that the D5000 will *not* refocus while shooting movies, even if you press the shutter release down again.
 - **When using Wide area and Normal area autofocus,** the focus zone will be outlined in red. You can move the focus zone around the screen with the multi selector buttons. When sharp focus is achieved, the focus zone box will turn green. The D5000 uses Single-servo AF (AF-S), so focus is locked for movies when you hold the shutter release down or press the AE-L/AF-L button.
 - **When using Face priority,** a double yellow border will be displayed when the camera detects a face. You don't need to press the shutter release to activate this behavior. (Up to five faces may be detected; the D5000

focuses on the face that is closest to the camera.) When you press down the shutter release halfway, the camera attempts to focus the face. As sharp focus is achieved, the border turns green (see Figure 6.1). If the camera is unable to focus, the border blinks red. Focus may also be lost if the subject turns away from the camera and is no longer detectable by **Face priority**. Single-servo AF (AF-S) is used.

- **When using Subject tracking**, a white border appears in the center of the frame, and turns yellow when focus is locked in (as described in the section that follows). To activate focus or refocus, press the multi selector up button.
 - **When using Manual focus**, use the multi selector to choose a focus point and press the shutter release halfway. Turn the focus ring on the lens. When sharp focus is achieved, the focus confirmation indicator at the lower left of the LCD will turn a steady green.
4. **Make exposure adjustments.** While using an automatic exposure mode, you can add or subtract exposure using the EV settings, as described in Chapter 2. Hold down the EV button (just southeast of the shutter release) and rotate the main command dial to add or subtract exposure. The back-panel color LCD will brighten or darken to represent the exposure change you make, and an EV indicator appears near the bottom of the display.
 5. **Shoot.** Press the shutter release all the way down to take a still picture, or press the OK button to start motion picture filming. Stop filming by pressing the OK button again. Movies up to 2GB in file size can be taken (assuming there is sufficient room on your memory card), which limits you to 5 minutes for an HDTV clip, and up to 20 minutes for other sizes. A Time Remaining indicator appears if 30 seconds or less of recording time is available.

NOT MUCH OF A LIMITATION

Unless you are shooting an entire performance from a fixed position, such as a stage play, the 5-minute limitation on HDTV movie duration won't put much of a crimp in your style. Good motion picture practice calls for each production to consist of a series of relatively *short* clips, with 10 to 20 seconds a good average. You can assemble and edit your D5000 movies into one long, finished production using one of the many movie-editing software packages available. Andy Warhol might have been successful with his 1963 five-hour epic *Sleep*, but the rest of us will do better with short sequences of the type produced by the Nikon D5000.

**Figure 6.1**

Face Priority can locate and focus on any face in your image.

Introducing Subject Tracking

The Nikon D5000 is the first dSLR from the company to offer the useful **Subject Tracking** autofocus feature, useful when shooting stills. It's one of those features that can be confusing at first, but once you get the hang of it, it's remarkably easy to use. **Face Priority**, in comparison, is almost intuitive to learn. (Specify these autofocus modes using CSM **a3: Live View autofocus**, as described in Chapter 4.) Here's the quick introduction you need to **Subject Tracking**.

- **Ready, aim...** When you've activated **Subject Tracking**, a white border appears in the center of the frame. Use that border to "aim" the camera until the subject you want to focus on and track is located within the border.
- **...Focus.** When you've pinpointed your subject, press the multi selector up button to activate the D5000's contrast detection autofocus feature. The focus frame will blink green while seeking focus, then turn yellow and the camera will emit a beep (unless you've disabled the beep with CSM **d1: Beep**) when locked in.
- **Reframe as desired.** Once the focus frame has turned yellow, it seemingly takes on a life of its own, and will "follow" your subject around on the LCD as you reframe your image. (In other words, the subject being tracked doesn't have to be in the center of the frame for the actual photo.) Best of all, if your subject moves, the D5000 will follow it and keep focus as required.

- **Tracking continues.** The only glitches that may pop up might occur if your subject is small and difficult to track, or is too close in tonal value to its background, or if the subject approaches the camera or recedes sufficiently to change its relative size on the LCD significantly.
- **Grab a new subject.** If you want to refocus or grab a new subject, press the multi selector up button again.



- | | | |
|----------------------------|----------------------------------|----------------------------|
| 1 Shooting mode | 7 Active D-Lighting mode | 13 Battery status |
| 2 No movies possible | 8 Image quality/size | 14 Shutter speed |
| 3 Live View time remaining | 9 Movie recording time remaining | 15 Aperture |
| 4 Flash mode | 10 White balance | 16 Action control reminder |
| 5 Release mode | 11 Audio recording indicator | 17 Focus point |
| 6 Live View Autofocus mode | 12 Metering mode | 18 ISO setting |
| | | 19 Shots remaining |

Figure 6.2 The Live View display includes a lot of information, some of which can be hidden.

When Live View is active, a display like the one shown in Figure 6.2 appears. Not all of the information appears all the time. For example, the **Time Remaining** indicator shows only when there are 30 seconds or less remaining for Live View shooting. The indicators overlaid on the image can be displayed or suppressed by pressing the INFO button. As you press the INFO button repeatedly, the LCD cycles among overlaid shooting information on/overlaid shooting information off/shooting information off with alignment grid display. The overlaid indicators include

- **Shooting mode.** This indicator shows the mode dial position you've selected, including any of the PSAM (Program, Shutter-priority, Aperture-priority, and Manual) modes, as well as one of the Scene modes. You can change modes while Live View is active. This indicator appears on the LCD even when shooting information is turned off.
- **Live View time remaining.** This is displayed when the amount of shooting time in Live View mode is 30 seconds or less. Although Live View is possible for 60 minutes, if the D5000 overheats, this countdown display appears and the camera exits Live View before damage is done.
- **No movies possible.** This shows that it is not possible to shoot movies, because there is not enough space remaining on your memory card.
- **Current Autofocus mode.** Shows whether **Wide area**, **Normal area**, or **Face priority** autofocus will be used. This indicator still appears when the alignment grid is displayed, even when other shooting information is turned off.
- **Image size.** Displays the current resolution, **L** (Large), **M** (Medium), or **S** (Small).
- **Image quality.** Shows JPEG Image Quality: **Fine**, **Norm**, or **Basic**.
- **White balance.** Displays the current white balance preset or WB Auto.
- **Audio recording indicator.** Shows when the monaural microphone is being used.
- **Movie time remaining.** Indicates the number of minutes and seconds remaining for movie shooting.
- **Action control reminders.** This indicator serves as a reminder for the key controls; for example, to start making a movie by pressing the OK button.
- **Alignment grid.** (Not shown in the figure.) This set of lines can be used to help line up horizontal or vertical lines.
- **Bracketing.** (Not shown in the figure.) When bracketing, a progress indicator appears overlaid in the lower-right corner of the Live View display.

Additional information is arrayed along the bottom of the LCD image, more or less duplicating much of the data in the LCD display that is seen through the viewfinder. These indicators include:

- **Metering method.** Shows whether Matrix, Center-weighted, or Spot metering is selected. Choose before entering Live View for still shots. (Matrix metering is always used when shooting movies.)
- **Shutter speed.** The currently selected shutter speed.
- **F/stop.** The current f/stop.
- **ISO value.** Shows the ISO sensitivity setting, or ISO Auto.
- **Shots remaining.** Indicates the number of images remaining on your memory card at the current **Image size** and **Image quality** settings.

Viewing Your Movies

Once you've finished recording your movies, they are available for review. Film clips show up during picture review, the same as still photos, but they are differentiated by a movie camera overlay. Press the center button of the multi selector to start playback.

During playback, you can perform the following functions:

- **Start/Pause.** Press the multi selector down button to pause the clip during playback. Press the multi selector center button to resume playback.
- **Rewind/Advance.** Press the left/right multi selector buttons to rewind or advance (respectively). While playback is paused, these buttons advance or rewind by one frame.
- **Change volume.** Press the Zoom In and Zoom Out buttons to increase/decrease volume.
- **Exit Playback.** Press the shutter release button halfway to exit playback.
- **View menus.** Press the MENU button to interrupt playback to access menus.

Tips for Shooting Better Video

There are a number of different things to consider when planning a video shoot:

Use a Shooting Script/Storyboards

A shooting script is nothing more than a coordinated plan that covers both audio and video and provides order and structure for your video. A detailed script will cover what types of shots you're going after, what dialogue you're going to use,

audio effects, transitions, and graphics. A storyboard is a series of panels providing visuals that help you visualize locations, placement of actors/actresses, props, and furniture. It also helps show how you want to frame or compose a shot.

Advance a Story

A lot of the work will come after you shoot, when your video is assembled using a movie-editing program like iMovie or Windows Movie Maker. Audio and video should always be advancing the story. While it's okay to let the camera linger from time to time, it should only be for a compelling reason and only briefly. It only takes a second or two for an establishing shot to impart the necessary information, and the same goes for a dramatic stare. Provide variety too. Change camera angles and perspectives often and never leave a static scene on the screen for a long period of time.

Keep Transitions Basic

Fancy transitions that involve exotic “wipes,” dissolves, or cross fades take too long for the average viewer and make your video ponderous. Save dissolves to show the passage of time (it's a cinematic convention that viewers are used to and understand).

Composition

Movie shooting calls for careful composition, and, in the case of HD video format, that composition must be framed by the 16:9 aspect ratio of the format. (See Figure 6.3.) Static shots where the camera is mounted on a tripod and everything's shot from the same distance are a recipe for dull videos. Try these tricks:

- **Establishing shot.** This composition, shown in Figure 6.3, establishes the scene and tells the viewer where the action is taking place.
- **Medium shot.** This shot is composed from about waist to headroom (some space above the subject's head). It's useful for providing variety from a series of close-ups and also makes for a useful first look at a speaker. (See Figure 6.4.)
- **Close-up.** The close-up, usually described as “from shirt pocket to head room,” provides a good composition for someone talking directly to the camera. (See Figure 6.5.)
- **Extreme close-up.** This shot has been described as the “big talking face” shot. Styles and tastes change over the years and now the big talking face is much more commonly used (maybe people are better looking these days?) and so this view may be appropriate. (See Figure 6.6.)

- **“Two” shot.** A two shot shows a pair of subjects in one frame. They can be side by side or one in the foreground and one in the background. Subjects can be standing or seated. A “three shot” is the same principle except that three people are in the frame. (See Figure 6.7.)
- **Over the shoulder shot.** Long a tool of interview programs, the “over the shoulder shot” uses the rear of one person’s head and shoulder to serve as a frame for the other person. This puts the viewer’s perspective as that of the person facing away from the camera. (See Figure 6.8.)



Figure 6.3



Figure 6.4



Figure 6.5



Figure 6.6



Figure 6.7



Figure 6.8

Lighting for Video

Much like in still photography, how you handle light pretty much can make or break your videography. You can significantly improve the quality of your video by increasing the light falling in the scene. An inexpensive shoe mount video light, which will easily fit in a camera bag, can be found for \$15 or \$20. You can even get a good quality LCD video light for less than \$100. Work lights sold at many home improvement stores can also serve as video lights since you can set the camera’s white balance to correct for any colorcasts. Much of the challenge depends upon whether you’re just trying to add some fill light on your subject versus trying to boost the light on an entire scene. A small video light in the camera’s hot shoe mount or on a flash bracket will do just fine for the former. It won’t handle the latter.

Lighting can either be hard (direct) or soft (diffused). Hard light is good for showing detail, but can also be very harsh and unforgiving. “Softening” the light, but diffusing it somehow, say, with an umbrella or white cardboard reflector, can reduce the intensity of the light but make for a kinder, gentler light as well.

Chapter 7

Shooting Tips

Here you'll find tips on settings to use for different kinds of shooting, including recommended settings for some Playback, Shooting, and Custom Setting menu options. You can set up your camera to shoot the main type of scenes you work with, then use the charts that follow to make changes for other kinds of images. Most will set up their D5000 for my All Purpose settings, and adjust from there.

Default, All Purpose, Sports—Outdoors, Sports—Indoors

	Default	All Purpose	Sports Outdoors	Sports Indoors
Exposure Mode	Your choice	P	S	S
Autofocus Mode	Your choice	AF-A	AF-C	AF-C
Metering Mode	Your choice	Matrix	Matrix	Matrix
Playback Menu				
Playback Folder	Current	All	Current	Current
Display Mode	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data
Image Review	On	On	Off	Off
Shooting Menu				
Set Picture Control	Standard	Standard	Vivid	Vivid
Image Quality	JPEG Fine	RAW+JPEG Fine	JPEG Fine	JPEG Fine
Image Size	Large	Large	Large	Large
White Balance	Auto	Auto	Auto	Tungsten or Fluorescent— Fine-tune if necessary
ISO Sensitivity	Auto	Auto	ISO 400	ISO 1600
Maximum sensitivity	--	1600		
Minimum shutter speed	--	1/30		
Active D-Lighting	Off	Auto	Off	Off
Color Space	sRGB	sRGB	sRGB	SRGB
Long Exposure NR	On	Off	Off	Off
High ISO NR	Normal	Off	Low	Normal
Active Folder	Current	Current	Current	Current
Movie Settings	1280 × 720	1280 × 720	1280 × 720	1280 × 720

	Default	All Purpose	Sports Outdoors	Sports Indoors
Custom Settings				
a Autofocus				
a1 AF-area mode	Auto-area	Auto-area	Dynamic area	Dynamic area
a2 Built-in AF-assist illuminator	Auto	Auto	Off	Off
a3 Live View autofocus	Wide area	Wide area	Wide area	Wide area
a4 Rangefinder	Off	Off	Off	Off
b Metering/Exposure				
b1 EV steps for exposure cntrl	1/3 step	1/3 step	1/3 step	1/3 step
c Timer/AE lock				
c1 Shutter-release button AE-L	Off	Off	On	On
c2 Auto off timers	Normal	Normal	Long	Long
c3 Self timer delay	10s	10s	10s	10s
c4 Remote on duration	1 min	1 min	1 min	1 min
d Shooting/display				
d1 Beep	On	Off	Off	Off
d2 Viewfinder grid display	Off	Off	Off	Off
d3 ISO display	On	On	On	On
d4 File number sequence	Off	On	On	On
d5 Exposure delay mode	Off	Off	Off	Off
d6 Date imprint	Off	Off	Off	Off
d7 Live View display options	Show indicators	Show indicators	Hide indicators	Hide indicators

	Default	All Purpose	Sports Outdoors	Sports Indoors
Custom Settings (continued)				
e Bracketing/Flash				
e1 Flash cntl for built-in flash	TTL	TTL	TTL	TTL
e2 Auto bracketing set	AE & Flash	AE & Flash	AE	AE
f Controls				
f1 Assign Fn button	Release mode	Release mode	Release mode	Release mode
f2 Assign AE-L/AF-L button	AE/AF Lock	AE/AF Lock	AF On	AF On
f3 Reverse dial rotation	No	No	No	No
f4 No memory card?	Release locked	Release locked	Release locked	Release locked
f5 Reverse indicators	+ 0 -	+ 0 -	+ 0 -	+ 0 -

Stage Performance, Long Exposure, HDR, Portrait

	Stage Performances	Long Exposure	HDR	Portrait
Exposure Mode	S	M	A	A
Autofocus Mode	AF-C	M	AF-S	AF-S
Metering Mode	Spot	Center-weighted	Matrix	Center-weighted
Playback Menu				
Playback Folder	Current	Current	Current	Current
Display Mode	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data
Image Review	Off	On	Off	On

	Stage Performances	Long Exposure	HDR	Portrait
Shooting Menu				
Set Picture Control	User—Reduce contrast, Add sharpening	Neutral	Standard	Portrait
Image Quality	RAW+JPEG Fine	RAW+JPEG Fine	RAW+JPEG Fine	RAW+JPEG Fine
Image Size	Large	Large	Large	Large
White Balance	Tungsten—Fine-tune if necessary	Auto	Select preset	Auto
ISO Sensitivity	ISO 800-1600	ISO 200-400	ISO 200	ISO 200
Maximum sensitivity				
Minimum shutter speed				
Active D-Lighting	Auto	Low	Off	Normal
Color Space	Adobe RGB	Adobe RGB	Adobe RGB	Adobe RGB
Long Exposure NR	Off	On	On	Off
High ISO NR	Normal	Normal	Off	Off
Active Folder	Current	Current	Current	Current
Movie Settings	1280 × 720	1280 × 720	1280 × 720	1280 × 720
Custom Settings				
a Autofocus				
a1 AF-area mode	3D-tracking (11 points)	Single point	Auto-area	Single point
a2 Built-in AF-assist illuminator	Off	Off	Off	Off
a3 Live View autofocus	Wide area	Wide area	Wide area	Face priority
a4 Rangefinder	Off	Off	Off	Off

	Stage Performances	Long Exposure	HDR	Portrait
<i>Custom Settings (continued)</i>				
b Metering/Exposure				
b1 EV steps for exposure cntrl	1/3 step	1/2 step	1/3 step	1/3 step
c Timer/AE lock				
c1 Shutter-release button AE-L	On	Off	Off	Off
c2 Auto off timers	Normal	Short	Short	Long
c3 Self timer delay	10s	5s	10s	10s
c4 Remote on duration	1 min	1 min	1 min	1 min
d Shooting/display				
d1 Beep	Off	Off	Off	Off
d2 Viewfinder grid display	Off	Off	Off	Off
d3 ISO display	On	On	On	On
d4 File number sequence	On	On	On	On
d5 Exposure delay mode	Off	On	On	Off
d6 Date imprint	Off	Off	Off	Off
d7 Live View display options	Show indicators	Show indicators	Show indicators	Show indicators
e Bracketing/Flash				
e1 Flash cntrl for built-in flash	TTL	TTL	TTL	TTL
e2 Auto bracketing set	AE	AE & Flash	AE	AE & Flash

	Stage Performances	Long Exposure	HDR	Portrait
f controls				
f1 Assign Fn button	ISO sensitivity	ISO sensitivity	Release mode	Release mode
f2 Assign AE-L/AF-L button	AE/AF Lock	AE/AF Lock	AE/AF Lock	AE/AF Lock
f3 Reverse rotation	No	No	No	No
f4 No memory card?	Release locked	Release locked	Release locked	Release locked
f5 Reverse indicators	+ 0 -	+ 0 -	+ 0 -	+ 0 -

Studio Flash, Landscape, Macro, Travel, E-Mail

	Studio Flash	Landscape	Macro	Travel	E-Mail
Exposure Mode	A	A	A	A	A
Autofocus Mode	AF-S	AF-S	M	AF-S	AF-S
Metering Mode	Matrix	Matrix	Spot	Matrix	Matrix
Playback Menu					
Playback Folder	Current	Current	Current	All	All
Display Mode	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data	Highlights, RGB Histogram, Data
Image Review	Off	On	On	On	On
Shooting Menu					
Set Picture Control	Portrait	Landscape	Neutral	Vivid	Standard
Image Quality	RAW+JPEG Fine	RAW+JPEG Fine	RAW+JPEG Fine	JPEG Fine	JPEG Basic
Image Size	Large	Large	Large	Large	Medium or Small
White Balance	Flash	Auto	Select preset	Auto	Auto

	Studio Flash	Landscape	Macro	Travel	E-Mail
ISO Sensitivity	ISO 200	ISO 200	ISO 400-800	ISO 400-800	Auto
Maximum sensitivity					1600
Minimum shutter speed					1/60
Active D-Lighting	Off	Auto	Low	Auto	Auto
Color Space	Adobe RGB	Adobe RGB	sRGB	sRGB	SRGB
Long Exposure NR	Off	Off	On	Off	Off
High ISO NR	Off	Off	Off	Normal	Off
Active Folder	Current	Current	Current	Create new folder each day or city	Current
Movie Settings	1280 × 720	1280 × 720	1280 × 720	1280 × 720	320 × 240
Custom Settings					
a Autofocus					
a1 AF-area mode	Single point	Single point	Single point	Auto-area	Auto-area
a2 Built-in AF-assist illuminator	Off	Off	On	On	On
a3 Live view autofocus	Normal area	Wide area	Normal area	Wide area	Normal area
a4 Rangefinder	Off	Off	On	Off	Off
b Metering/Exposure					
b1 EV steps for exposure cntrl	1/3 step	1/3 step	1/3 step	1/3 step	1/3 step
c Timer/AE lock					
c1 Shutter-release button AE-L	Off	Off	Off	Off	Off
c2 Auto off timers	Normal	Normal	Normal	Long	Normal
c3 Self timer delay	10s	5s	5s	10s/20s (if you're getting in the photo)	10s
c4 remote on duration	1 min	1 min	1 min	1 min	1 min

	Studio Flash	Landscape	Macro	Travel	E-Mail
d Shooting/display					
d1 Beep	Off	Off	Off	Off	Off
d2 Viewfinder grid display	Off	On	On	Off	Off
d3 ISO display	On	On	On	On	On
d4 File number sequence	On	On	On	On	On
d5 Exposure delay mode	Off	Off	On	Off	Off
d6 Date imprint	Off	Off	Off	On	On
d7 Live View display options	Show indicators	Show indicators	Show indicators	Show indicators	Show indicators
e Bracketing/Flash					
e1 Flash cntrl for built-in flash	Manual	TTL	TTL or Manual	TTL	TTL
e2 Auto bracketing set	AE & Flash	ADL bracketing	AE & Flash	AE & Flash	AE & Flash
f controls					
f1 Assign Fn button	BKT	BKT	Self-timer	Self-timer	Self-timer
f2 Assign AE-L/AF-L button	AE/AF Lock	AE/AF Lock	AE/AF Lock	AE/AF Lock	AE/AF Lock
f3 Reverse rotation	No	No	No	No	No
f4 No memory card?	Release locked	Release locked	Release locked	Release locked	Release locked
f5 Reverse indicators	+ 0 -	+ 0 -	+ 0 -	+ 0 -	+ 0 -

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