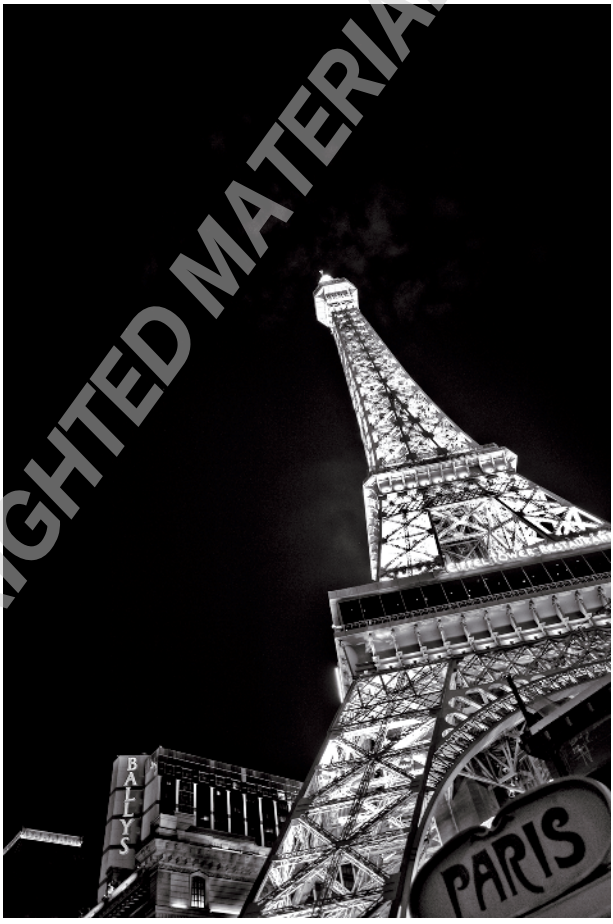
CHAPTER 1

Exploring the Nikon D7000

This chapter covers the key components of the Nikon D7000. These are the features that are most readily accessible because they are situated on the outside of the camera: the buttons, knobs, switches, and dials.

Although most Nikon dSLRs are relatively similar to each other, the D7000 has had an extensive redesign. Even if you're familiar with other Nikon dSLR cameras, you may want to read through the chapter to acquaint yourself with all the new features of the D7000.



Getting to know all your camera's menus, buttons, and dials allows you to capture your images just as you envision them.

Key Components of the D7000

This section doesn't cover the menus, only the exterior controls. Although you can access many features using menu options, oftentimes you can change the same settings with just the push of a button. Knowing exactly what these buttons do can save you loads of time and keep you from missing a shot.

Top of the camera

You find some of the most important buttons and dials on the top of the D7000. This is where you can change the Shooting mode and press the Shutter Release button to take your photo.

- **Shutter Release button.** In my opinion, this is the most important button on the camera. Halfway pressing this button activates the camera's autofocus and light meter. Fully depressing this button releases the shutter and a photograph is taken. When the camera has been idle, and has "gone to sleep," lightly pressing the Shutter Release button wakes it up. When the image review is on, lightly pressing the Shutter Release button turns off the LCD and prepares the camera for another shot.
- **On/Off switch.** This switch, located around the Shutter Release button, is used to turn the camera on and off. Push the switch all the way to the left to turn off the camera. Pull the switch to the right to turn the camera on. The On/Off switch also has a momentary switch, which when pulled to the far right turns on the control panel backlight. This momentary switch can also be programmed to bring up the Info display on the monitor using Custom Settings menu (CSM) f1.
- **Mode dial.** This is an important dial. Rotating it allows you to quickly change your Shooting mode. You can choose the scene mode, one of the semiautomatic modes, or Manual exposure mode, which lets you pick the exposure settings.

For a detailed description of all the exposure modes, see Chapter 2.

- **Release Mode dial.** The Release mode controls how the shutter is released when the button is pressed. There are seven options.
  - **Single.** This allows you take a single photograph with each press of the Shutter Release button. The camera will not fire multiple frames when the button is held down.

- **CL (Continuous low speed).** When using this Release mode, pressing and holding the button allows the camera to shoot multiple frames at low speed. The frame rate for this Release mode is set in CSM d6. You can select from 1-5fps.
- **CH (Continuous high speed).** When you use this Release mode, pressing and holding the button allows the camera to shoot multiple frames at high speed. The camera shoots at the maximum frame rate of 6fps.

The maximum frame rate is dependent on the shutter speed, buffer, and memory card speed.

- **Q (quiet mode).** This mode allows you to control the release of the reflex mirror. When you press the Shutter Release button, the reflex mirror stays up until you release the button. This allows you to take pictures more quietly by moving to a different area or covering up the camera before you release the Shutter Release button, allowing the mirror to reset.
- **Self-timer.** This activates the self-timer that allows a delay from the time the Shutter Release button is pressed and the shutter is released. The timer is set in the Remote control mode in the Shooting menu.
- **Remote control.** This allows you to use the optional ML-L3 wireless remote to release the shutter. You can change the settings in the Remote control mode in the Shooting menu.
- **Mup (Mirror up).** This option raises the reflex mirror with one press of the Shutter Release button and releases the shutter and resets the mirror with a second press of the button. You can use this to minimize camera shake from mirror movement when shooting long exposures on a tripod or when using a long telephoto lens.

▶ **Exposure Compensation button.** Pressing this button in conjunction with spinning the Main Command dial allows you to modify the exposure that is set by the D7000's light meter when it is set to Programmed Auto (P), Shutter Priority (S), or Aperture Priority (A) mode. Turning the Command dial to the right decreases exposure while turning the dial to the left increases the exposure.

The Exposure Compensation button serves no functions when shooting in the automatic or scene modes.

- **Metering mode button.** Pressing this button and rotating the Main Command dial allows you to change the metering mode between Matrix, Center-weighted, and Spot metering.
- **Focal plane mark.** The focal plane mark shows you where the plane of the image sensor is inside the camera. The sensor is directly behind the shutter. When measuring distance for calculating flash output, you measure the subject-to-focal-plane distance.

Image courtesy of Nikon, Inc.

1.1 Top-of-the-camera controls

- **Hot shoe.** This is where an accessory flash is attached to the camera body. The hot shoe has an electronic contact that tells the flash to fire when the shutter is released. A number of other electronic contacts allow the camera to communicate with the flash, enabling the automated features of a dedicated flash unit such as the SB-700.

On the kit lens, you find three key features:

- **Focus ring.** Rotating the focus ring allows you to focus the lens manually. The location of the focus ring varies by lens. With old AF (non AF-S) lenses, and even older manual focus lenses, you turn the ring to focus the lens. Newer AF-S lenses, such as the kit lens, have a switch labeled A and M. Select M before attempting to manually focus. If you don't switch it over first, you can damage the lens. Some higher-end AF-S lenses have a switch labeled A/M and M. With these lenses set to the A/M position, you can manually override the autofocus at any time without damaging the lens.

For more information on lenses and compatibility, see Chapter 4.

- **Zoom ring.** Rotating the zoom ring allows you to change the focal length of the lens. Prime lenses do not have a zoom ring.
- **Focal length indicators.** These numbers indicate which focal length in millimeters your lens is zoomed to.

Back of the camera

The back of the camera is where you find the buttons that mainly control playback and menu options, although a few buttons control some of the shooting functions. Most of the buttons have more than one function — a lot of them are used in conjunction with the Main Command dial or the Multi-selector. On the back of the camera you also find several key features, including the all-important LCD and viewfinder.

- **LCD Monitor.** This is the most obvious feature on the back of the camera. This 3-inch, 930,000-dot liquid crystal display (LCD) is a very bright, high-resolution screen. The LCD is where you view all your current camera settings and review your images after shooting, and it displays the video feed for Live View and video recording.
- **Viewfinder.** This is what you look through to compose your photographs. Light coming through the lens is reflected from a series of five mirrors (called a *pentamirror*), enabling you to see exactly what you're shooting. The rubber

eyepiece around the viewfinder gives you a softer place to rest your eye and blocks any extra light from entering the viewfinder as you compose and shoot your images.

- **Diopter adjustment control.** Just to the right of the viewfinder (hidden behind the eyecup) is the Diopter adjustment control. Use this control to adjust the viewfinder lens to suit your individual vision differences (not everyone's eyesight is the same). To adjust this, look through the viewfinder, and press the Shutter Release button halfway to focus on something. If what you see in the viewfinder isn't quite sharp, slide the Diopter adjustment up or down until everything appears in focus. The manual warns you not to put your finger or fingernail in your eye. I agree that this might not be a good idea.
- **AE-L/AF-L/Protect button.** The Auto-Exposure/Autofocus Lock button is used to lock the Auto-Exposure (AE) and Autofocus (AF). This button can be customized in the Setup menu (CSM f5) to provide AE/AF Lock AE Lock only, AF Lock only, AE Lock (hold), or AF-ON. AE Lock (hold) locks the exposure with one press of the button; the exposure is locked until the button is pressed again or the shutter is released. AF-ON engages the AF in the same way that half-pressing the shutter does. The button can also be set to FV lock when using an accessory Speedlight.
- **Main Command dial.** This dial is used to change a variety of settings depending on which button you are using in conjunction with it. By default, it is used to change the shutter speed when the camera is in Shutter Priority and Manual mode. It is also used to adjust exposure compensation and change the flash mode.
- **Live View switch/Movie Record button.** Nikon introduced this brand-new button with the D7000 and D3100 and is sure to use it on all subsequent cameras. It is a great feature that makes switching to Live View and recording video a breeze. Flipping the switch to the right activates Live View and pressing the Movie Record button starts recording video. To stop recording, simply press the button again. To exit Live View, flick the switch to the left. Quick and easy.
- **Multi-selector.** The Multi-selector is another button that serves a few different purposes. In Playback mode, you use it to scroll through the photographs you've taken, and you can also use it to view image information such as histograms and shooting settings. When the D7000 is in Single-point AF or Dynamic-area AF mode, you can use the Multi-selector to change the active focus point. And you use the Multi-selector to navigate through the menu options.
- **OK button.** When the D7000 is in the Menu mode, you press the OK button to select the menu item that is highlighted.

- **Focus selector lock.** This switch locks the focus point so that it cannot be moved with the Multi-selector button.
- **Memory card access lamp.** This light blinks when the memory card is in use. Under no circumstances should you remove the card when this light is on or blinking. You could damage your card or camera and lose any information in the camera's buffer.
- **Info button.** Pressing this button displays the shooting information on the monitor. Press this button twice to adjust settings in the Info menu.

Image courtesy of Nikon, Inc.

1.2 Back-of-the-camera controls

- **Playback button.** Pressing this button activates the Playback mode and by default displays the most recently taken photograph. You can also view other pictures by pressing the Multi-selector left and right.
- **Delete button.** If you are reviewing your pictures and find some that you don't want to keep, you can delete them by pressing the Delete button, which is marked with a trashcan icon. To prevent you from accidentally deleting images, the camera displays a dialog box asking you to confirm that you want to erase the picture. Press the Delete button a second time to permanently erase the image.
- **Speaker.** This small speaker enables you to hear the audio recorded with the video you have shot. I must admit that the fidelity of the speaker isn't that great and it's quite hard to get an accurate representation of what the sound is going to be like when it is played back through your TV or computer speakers.
- **Menu button.** Press this button to access the D7000 menu options. There are a number of different menus, including Playback, Shooting, Custom Settings, and Retouch. Use the Multi-selector to choose the menu you want to view and press OK to enter the specific menu screen.
- **White balance/Help/Protect button.** Pressing this button and rotating the Main Command dial allows you to change the white balance (WB) settings when in Shooting mode. Rotating the Sub-command dial allows you to fine-tune the selected WB setting by adding blue or amber to make the image cooler or warmer, respectively. You can add blue (b1–b6) by rotating the dial to the right and amber (a1–a6) by rotating to the left. When you're viewing the Information Display and a question mark appears or when you're scrolling through the menu options and a question mark appears in the lower-left corner, you can press this button to get more information. When the D7000 is in Playback, press this button to protect (lock) the image from accidentally being deleted. Press it again to unlock it.
- **ISO/Thumbnail/Zoom out button.** In Shooting mode, pressing this button and rotating the Command dial allows you to change the ISO settings. In Playback mode, pressing this button allows you to go from full-frame playback (or viewing the whole image) to viewing thumbnails. The thumbnails can be displayed as 4, 9, or 72 images on a page. You can also view images by calendar date. When you're viewing the menu options, pressing this button displays a help screen that explains the functions of that particular menu option. This button also allows you to zoom out after you have zoomed in on a particular image.
- **QUAL/Zoom in button.** When the D7000 is in Shooting mode, pressing this button and rotating the Command dials allows you to quickly change the image quality and size settings. Rotating the Main Command dial changes allows you

to choose a format (RAW, JPG, or RAW+JPG) as well as the JPG compression (Basic, Normal, Fine). Rotating the Sub-command dial allows you to choose the JPG size, but has no effect when the quality is set to RAW. When reviewing your images, you can press the Zoom in button to get a closer look at the details of your image. This is a handy feature for checking the sharpness and focus of your shot. When you are zoomed in, use the Multi-selector to navigate around within the image. To view your other images at the same zoom ratio, you can rotate the Command dial. To return to full-frame playback, press the Zoom out button. You may have to press the Zoom out button multiple times, depending on how much you have zoomed in.

Front of the camera

The front of the D7000 (the lens facing you) is where you find the buttons to quickly adjust the flash settings as well as some camera-focusing options, and with certain lenses, you will find some buttons that control focusing and Vibration Reduction (VR).

- **Built-in flash.** This option is a handy feature that allows you to take sharp pictures in low-light situations. Although not as versatile as one of the external Nikon Speedlights, such as the SB-600 or SB-400, the built-in flash can be used very effectively and is great for snapshots. I highly recommend getting a flash diffuser if you plan on using it often. You can also use it to control off-camera Speedlights, which is great option that isn't included on some of Nikon's lesser models.
- **Infrared receiver.** This allows you to use the optional wireless remote, the ML-L3.
- **Preview button.** By default, this button stops down the aperture so that you can see in real time what the depth of field will look like. It's a customizable button that can be set to a number of different settings. You can set the button to quickly change the image quality, ISO sensitivity, white balance, or Active D-Lighting settings via the Info display. Pressing the Preview button and rotating the Command dial changes the settings. You can change the setting options in CSM f4.
- **Function (Fn) button.** You can set the Fn button to a number of different settings so that you can access them quickly, rather than searching through the menu options manually. You can set the button to change the image quality, ISO sensitivity, white balance, or Active D-Lighting settings via the Info display. Pressing the Fn button and rotating the Command dial changes the settings. You can change the setting options in the Setup menu in CSM f3 under the Buttons option.
- **Built-in microphone.** This microphone can record sound while you're recording HD video.

Image courtesy of Nikon, Inc.

1.3 Front of the Nikon D7000

- **Sub-command dial.** The Sub-command dial is used to adjust a number of different things, but by default, it's used to change the aperture setting. It is also used to change various settings when used in conjunction with other buttons, such as the Quality button.
- **AF-assist illuminator.** This is an LED that shines on the subject to help the camera to focus when the lighting is dim. The AF-assist illuminator only lights when in Single-servo AF mode (AF-S) or Full-time-servo mode (AF-A) and the center AF point is selected. This is also lit when the camera is set to Red-Eye Reduction flash using the camera's built-in flash.

Right side of the camera

On the right side of the camera (the lens facing you) are the output terminals on the D7000. These are used to connect your camera to a computer or to an external source for viewing your images directly from the camera. These terminals are hidden under a rubber cover that helps keep out dust and moisture.

- **Flash pop-up/Flash mode/FEC button.** When you're using P, S, A, or M exposure modes, press this button to open and activate the built-in Speedlight. Pressing this button and rotating the Command dial on the rear of the camera allows you to choose a flash mode. Depending on the Shooting mode, you can choose from among Front-Curtain Sync, Red-Eye Reduction, Red-Eye Reduction with Slow Sync, Slow Sync, and Rear-Curtain Sync. Once the flash is popped up, pressing this button in conjunction with the Exposure Compensation button and rotating the Command dial allows you to adjust the Flash Exposure Compensation (FEC). FEC allows you to adjust the flash output to make the flash brighter or dimmer depending on your needs. When you're shooting in Auto or scene modes, the flash is automatically activated and some Flash sync modes aren't available depending on the scene mode.
  - **Auto, Portrait, Child, Close-up.** When using these modes, you can select Auto-flash, Auto with Red-Eye Reduction, or set to Off.
  - **Night portrait.** With this mode you can select Auto with Slow Sync and Red-Eye Reduction, Auto with Slow Sync, or set to Off.
  - **P, A.** With these modes you can select Fill flash, Red-Eye Reduction, Slow Sync with Red-Eye Reduction, Slow Sync, or Rear-Curtain with Slow Sync.
  - **S, M.** These modes allow you to use Fill flash, Red-Eye Reduction, or Rear-Curtain Sync.
- **Auto-bracketing (BKT) button.** This button is used to activate the Auto-bracketing feature. Pressing the button and rotating the Main Command dial allows you to choose from a three-frame bracket (normal, under, over), or a two-frame bracket (normal, over, or normal, under). Rotating the Sub-command dial lets you choose the bracketing increments; you can choose from 0.3 to 2 EV (exposure value) in 1/3 steps.
- **Lens mounting mark.** Most lenses have a white mark on them to help you to line up your lens bayonet so that it can be rotated and locked into place. Use this mark to line up with the mounting mark on the lens.
- **Lens release button.** This button disengages the locking mechanism of the lens, allowing the lens to be rotated and removed from the lens mount.

Image courtesy of Nikon, Inc.

1.4 The right side of the D7000

- **AF-mode button/Focus mode selector.** Pressing the button and rotating the Main Command dial allows you to select the AF mode; you can choose Auto (AF-A), Single-servo (AF-S), or Continuous (AF-C). Rotating the Sub-command dial allows you to select the AF-area mode. In AF-S, you can choose Single point or Auto; in AF-A or AF-C, you can select from Single point, Dynamic (9, 21, or 39), 3D-tracking, or Auto.
- **GPS/Accessory input.** This is an accessory port that allows you to connect the optional Nikon GP-1 for geotagging your images.
- **USB port.** This is where you plug in the USB cable, attaching the camera to your computer to transfer images straight from the camera to the computer. The USB cable is also used to connect the camera to the computer when using Nikon's optional Camera Control Pro 2 software.

- **HDMI.** This terminal is for connecting your camera to an HDTV or HD monitor. This requires a type C mini-pin HDMI cable that's available at any electronics store.
- **A/V out.** This connection, officially called Standard video output, is used to connect the camera to a standard TV for viewing your images on-screen. The D7000 connects with the EG-D2 video cable that is included with the D7000.
- **Microphone input.** You can use this input to connect an external mic, which records sound for your videos at a better quality that you can get from the built-in mic.
- **Autofocus switch.** This switch is used to choose between using the lens in Auto or Manual focus.
- **VR switch.** This allows you to turn the Vibration Reduction (VR) on or off. When you're shooting in normal or bright light, it's best to turn the VR off to reduce battery consumption.

Image courtesy of Nikon, Inc.

1.5 Memory card slot cover

Left side of the camera

On the left side of the camera (the lens facing you) is the memory card slot cover. Sliding this door toward the back of the camera opens it so you can insert or remove your memory cards.

Viewfinder Display

When looking through the viewfinder, you see a lot of useful information about the photo you are setting up. Most of the information is also shown in the Information Display, but it is less handy when you are looking through the viewfinder composing a shot. Here is a complete list of all the information you get from the viewfinder display:

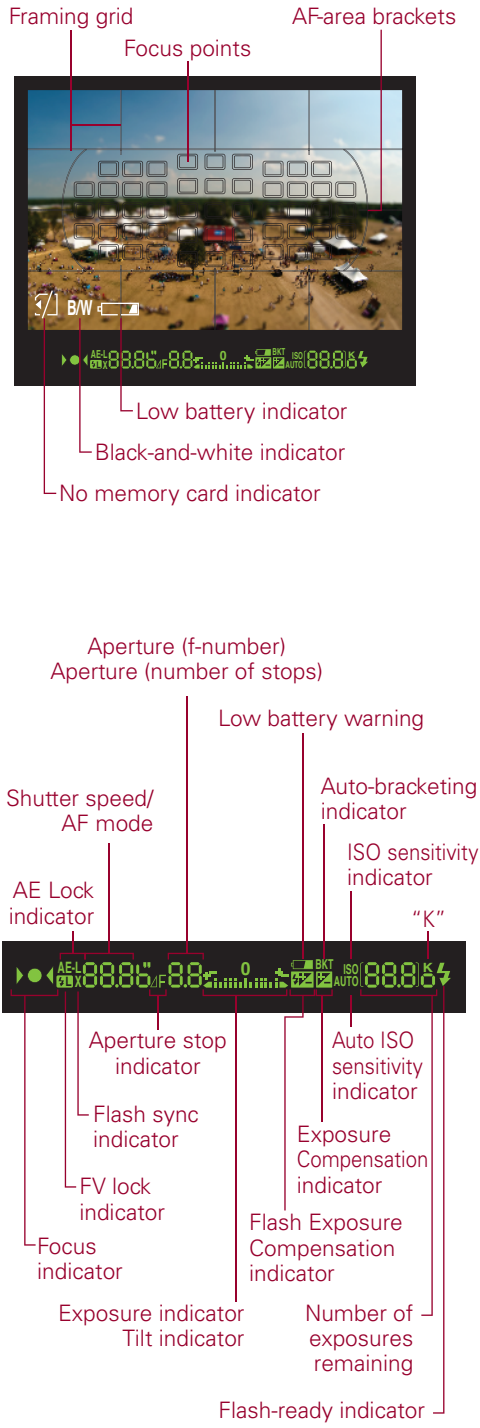
- **Framing grid.** When this option is turned on in the Custom Settings menu (CSM) d2, you will see a grid displayed in the viewing area. Use the grid to line up elements of your composition to ensure they are straight (or not).
- **Focus points.** The first thing you are likely to notice when looking through the viewfinder is a small rectangle near the center of the frame. This is your active focus point. Note that only the active focus point is shown full-time when you're using the Single, Dynamic, or 3D-tracking AF setting. When the camera is set to Auto-area AF, no focus point is shown until the Shutter Release button is half-pressed and focus is achieved.

- **AF-area brackets.** These brackets are used to indicate where the boundaries of the AF points are. The AF system will not recognize anything that lies outside the brackets. In the middle of the AF-area brackets on the top and bottom there is a semi-circle, which is the 12mm center-weighted metering circle.
- **Low battery indicator.** This shows up when the battery is low. When the battery is completely exhausted, this icon blinks and the Shutter Release is disabled.
- **Black-and-white indicator.** This warning appears when the camera is set to the MC (monochrome) Picture Control.
- **No memory card indicator.** This warning appears when there is no memory card inserted in the camera.

The No memory card, Black-and-white, and Low battery indicators can be turned off in CSM d4.

- **Focus indicator.** This is a green dot that lets you know whether the camera detects that the scene is in focus. When focus is achieved, the green dot lights up; if the camera is not in focus, no dot is displayed. On either side of a dot is an arrow. When the left arrow is lit, the focus is in between the camera and the subject; when the right arrow is lit the focus is falling behind the subject. Both arrows blinking indicates that the camera was unable to achieve focus.
- **AE Lock indicator.** When this is lit, you know that the Auto-Exposure has been locked.
- **Shutter speed/AF mode.** This shows how long your shutter is set to stay open, from 30 seconds (30") up to 1/8000 (8000) second. When you press the AF mode button, this shows your AF mode setting (AF-A, AF-C, AF-S).
- **Aperture.** This shows what your current aperture setting is. The words *aperture* and *f-stop* are used interchangeably. Your aperture setting is how wide your lens opening is.
- **Low battery warning.** This appears when the camera battery is low and needs to be charged.
- **Auto-bracketing indicator.** This appears when Auto-bracketing is engaged.
- **ISO sensitivity indicator.** When you press the ISO button, this indicator shows up next to the ISO sensitivity setting, letting you know that the numbers you are seeing are the ISO numbers.

- **K.** This lets you know that there are more than 1,000 exposures remaining on your memory card.
- **Flash-ready indicator.** When this is displayed, the flash, whether it is the built-in flash or an external Speedlight attached to the hot shoe, is fully charged and ready to fire at full power.
- **FV lock indicator.** When the FV lock indicator is on, it means you have locked in the flash exposure value. The flash value (FV) can only be locked when the Function button (or Preview) has been set to do this.
- **Flash sync indicator.** This indicator is displayed as a small X. This comes on when you set your camera to the sync speed in CSM e1. This is only available in Shutter Priority (S) or Manual (M) mode. To set the camera to the preset sync speed, dial the shutter speed down one setting past the longest shutter time, which is 30 seconds in S and bulb in M.
- **Aperture stop indicator.** This indicator is displayed when a non-CPU lens is attached that hasn't had non-CPU lens data entered. The camera displays the aperture steps in numbers. Wide open the indicator reads F0, and each stop you click



1.6 Viewfinder display

down is another full number; for example, stop down to f/5.6 when using an f/2.8 lens and the indicator reads F2. Stop down to f/22 and it reads F6, which is 6 stops away from f/2.8.

- **Exposure indicator/Tilt indicator.** When the bars are in the center, you are at the proper settings to get a good exposure; when the bars are to the left, you are overexposed, and when the bars are to the right, you are underexposing your image. You can reverse this in CSM f9. This feature is especially handy when using Manual exposure. This display also doubles as the tilt indicator that allows you to ensure your camera is level, which is great when shooting landscapes. When the camera is tilted to the right, the bars are displayed on the left. When the camera is tilted to the left, the bars are displayed on the right. When the camera is level, a single bar appears directly under the zero.
- **FEC indicator.** When this is displayed, Flash Exposure Compensation is on. You adjust FEC by pressing the Flash mode button and rotating the Sub-command dial.
- **Exposure Compensation indicator.** When this appears in the viewfinder, your camera has exposure compensation activated. You adjust exposure compensation by pressing the Exposure Compensation button and rotating the Main Command dial.
- **Auto ISO indicator.** This is displayed when the Auto ISO setting is activated to let you know that the camera is controlling the ISO settings. You can turn on Auto ISO in the ISO sensitivity settings located in the Shooting menu.
- **Exposures remaining/ISO/WB/EV FEC/Active D-Lighting/AF-area mode.** This set of numbers lets you know how many more exposures can fit on the memory card. The actual number of exposures may vary according to file information and compression. When you half-press the Shutter Release button, the display changes to show how many exposures can fit in the camera's buffer before the buffer is full and the frame rate slows down. The buffer is in-camera RAM that stores your image data while the data is being written to the memory card. This also shows the WB preset recording information as well as your exposure compensation values, FEC values, Active D-Lighting amount, and the AF-area mode.

Control Panel

The Control Panel on the top of the camera allows you a quick way to reference some of the most important settings on your D7000.

- **Color temperature indicator.** This indicator is displayed to alert you that the numbers you are seeing is the color temperature in the Kelvin scale. This only appears when the camera is set to Kelvin WB and the WB button is being pressed.
- **Shutter speed.** By default, this set of numbers shows you the shutter speed setting. These numbers also show a myriad of other settings depending on which buttons are being pressed and what modes are activated. Here's a list:
  - **Exposure compensation value.** When you press the Exposure Compensation button and rotate the Sub-command dial, the exposure value (EV) compensation number is displayed.
  - **FEC value.** Pressing the Flash mode button and rotating the Sub-command dial displays the FEC value.
  - **WB fine-tuning.** Pressing the WB button and rotating the Sub-command dial fine-tunes the white balance setting. A is warmer and B is cooler.
  - **Color temperature.** When the WB is set to K, the panel displays the color temperature in the Kelvin scale when you press the WB button.
  - **WB preset number.** When the WB is set to one of the preset numbers, pressing the WB button displays the preset number currently being used.
  - **Bracketing sequence.** When the D7000 Auto-bracketing feature is activated, pressing the Function button displays the number of shots left in the bracketing sequence. This includes WB, exposure, and flash bracketing.
  - **Interval timer number.** When the camera is set to use the interval timer for time-lapse photography, this displays the number of shots remaining in the current interval.
  - **Focal length (non-CPU lenses).** When the camera's Function button is set to choose a non-CPU lens number when the Function button is pressed, the focal length of the non-CPU lens is displayed. You must enter the lens data in the Setup menu.
- **MB-D11 battery indicator.** When the MB-D11 battery grip is attached and the camera is using the battery installed in the grip, this icon is displayed.
- **Battery indicator.** This display shows the charge remaining on the active battery. When this indicator is blinking, the battery is dead and the shutter is disabled.
- **Flash mode.** These icons denote which flash mode you are using. The flash modes include Red-Eye Reduction, Red-Eye Reduction with Slow Sync, Slow Sync, and Rear-Curtain Sync. To change the Flash sync mode, press the Flash mode button and rotate the Main Command dial.

- **Image size.** When you're shooting JPEG, or RAW + JPEG files, this tells you whether you are recording Large, Medium, or Small files. This display is turned off when shooting RAW files.
- **Image quality.** This displays the type of file format you are recording. You can shoot RAW or JPEG. When you're shooting JPEG or RAW + JPEG, it displays the compression quality: FINE, NORM, or BASIC.
- **WB fine-tuning indicator.** When the white balance fine-tuning feature is activated, this asterisk is displayed. You can fine-tune WB by pressing the WB button and rotating the Sub-command dial.
- **WB setting.** This shows you which white balance setting is currently selected.
- **Aperture stop indicator.** This icon appears when a non-CPU lens is attached without the non-CPU lens data being entered. This indicates that the numbers next to it are not aperture settings, but aperture stops starting from F0, which is wide open.
- **F-stop/Aperture number.** At default settings, this displays the aperture at which the camera is set. This indicator also displays other settings as follows:
  - **Aperture (number of stops).** This shows the number of stops for a non-CPU lens with no data entered into the camera.
  - **Auto-bracketing compensation increments.** The exposure bracketing can be adjusted to over- and underexpose in 1/3-stop increments. When the Function button is set to Auto-bracketing, the number of EV stops is displayed in this area. The choices are 0.3, 0.7, or 1.0 EV. The WB Auto-bracketing can also be adjusted; the settings are 1, 2, or 3.
  - **Number of shots per interval.** When the D7000 is set to Interval Timer shooting, the number of frames shot in the interval is displayed.
  - **Maximum aperture (non-CPU lenses).** When a non-CPU lens is attached and the non-CPU lens data has been entered, the aperture setting of the specified lens is displayed.
  - **PC mode indicator.** This is displayed as PC when connected to the computer by a USB cable.
- **Flexible program indicator.** This asterisk appears next to the exposure mode when you're in P, or Programmed Auto, mode. It lets you know that you have changed the default auto-exposure set by the camera to better suit your creative needs.

- **Memory card indicator (Slot 1, Slot 2).** This is displayed when a memory card is inserted into a slot. If a number appears in the icon, the slot contains the active card and the images are being recorded to it. Both slots can be active when you're using Slot 2 as a backup or recording RAW to Slot 1 and JPG to Slot 2.
- **Auto ISO indicator.** This is displayed when the Automatic ISO setting is activated to let you know that the camera is controlling the ISO settings. You can activate Auto ISO in the Shooting menu.
- **Thousands indicator (K).** This lets you know that there are more than 1,000 exposures remaining on your memory card.
- **Beep indicator.** This informs you that the camera will beep when the self-timer is activated or when the camera achieves focus when in Single Focus mode.
- **Exposure Compensation indicator.** When this appears in the control panel, your camera has exposure compensation activated. This will affect your exposure. Adjust the exposure compensation by pressing the Exposure Compensation button and rotating the Main Command dial.
- **Flash sync indicator.** This indicator is displayed as an X. This comes on when you set your camera to the flash sync speed that is set in CSM e1. This is only available in S or M mode. To set the camera to the preset sync speed, dial the shutter speed down one setting past the longest shutter time, which is 30 seconds in S and bulb in M.
- **Flash Compensation indicator.** This icon is displayed to inform you that Flash Exposure Compensation has been applied.
- **AF-area mode indicator.** This lets you know what AF-area mode is selected and in use.
- **AF mode.** This lets you know which focus mode is being used: AF-A, AF-C, or AF-S.
- **Clock not set indicator.** When this appears in the control panel, the camera's internal clock needs to be set. You can find the Clock settings in the Setup menu.
- **Interval timer indicator.** When the camera's Interval timer option is turned on, this appears in the control panel. You set the interval timer in the Shooting menu.
- **Multiple exposure indicator.** This icon informs you that the camera is set to record multiple exposures. Set multiple exposures in the Shooting menu.
- **Auto-bracketing indicator.** When the D7000 is in the Auto-Exposure or flash bracketing setting, this appears on the control panel; when it is using WB bracketing, a WB icon also appears above the icon. You set Auto-bracketing in CSM e5.

- **Bracketing progress indicator.** This shows you your place in the bracketing sequence when Auto-bracketing is turned on.
- **GPS connection indicator.** When this icon is displayed, a GPS device has been attached to the camera using the accessory port.
- **Metering mode.** This displays the metering mode setting (Matrix, Center-weighted, Spot metering).
- **Remaining exposures.** By default the number of remaining exposures is displayed. A few other things are also displayed, depending on the mode and what buttons are being pressed, as follows:
  - **Buffer.** When the Shutter Release button is half-pressed, the amount of shots remaining until the buffer is full is displayed.
  - **Capture mode indicator.** This indicates specific settings when the camera is connected to the computer with a USB (PC), and others when using Capture Control Pro 2 or the WT-4 wireless transmitter.
  - **ISO sensitivity.** This is the ISO sensitivity setting number.
  - **Preset white balance recording.** When recording a custom WB, this flashes PRE.
  - **Active D-Lighting amount.** This only appears when Active D-Lighting is assigned to the Fn or Preview button and that button is pressed. It displays the current setting (Auto, Off, HP (Extra High), H (High), n (Normal), L (Low)).
  - **Manual lens number.** This only appears when non-CPU lens data is assigned to the Fn or Preview button and that button is pressed. It displays the number of the lens setting (n-1–n-9).
  - **HDMI-CEC connection indicator.** When your camera is connected to an HDMI device that supports HDMI-CEC (Consumer Electronics Control), this icon is displayed. This means that the Multi-selector is disabled and the HDMI device remote is controlling the playback.

Information Display

The Information Display, which I refer to as the Info display for brevity, shows some of the same shooting information that appears in the viewfinder, but there are also quite a few settings that are only displayed here. When this is displayed on the rear LCD, you can view and change the settings without looking through the viewfinder. When the camera is turned on, the Shooting info is automatically displayed on the LCD monitor.

You can also view the Info display by pressing the Info button (located on the bottom right of the camera directly under the focus selector lock). Pressing the Info button twice brings up another screen, which allows you to change some key settings on the camera. These settings are detailed in Figure 1.9.

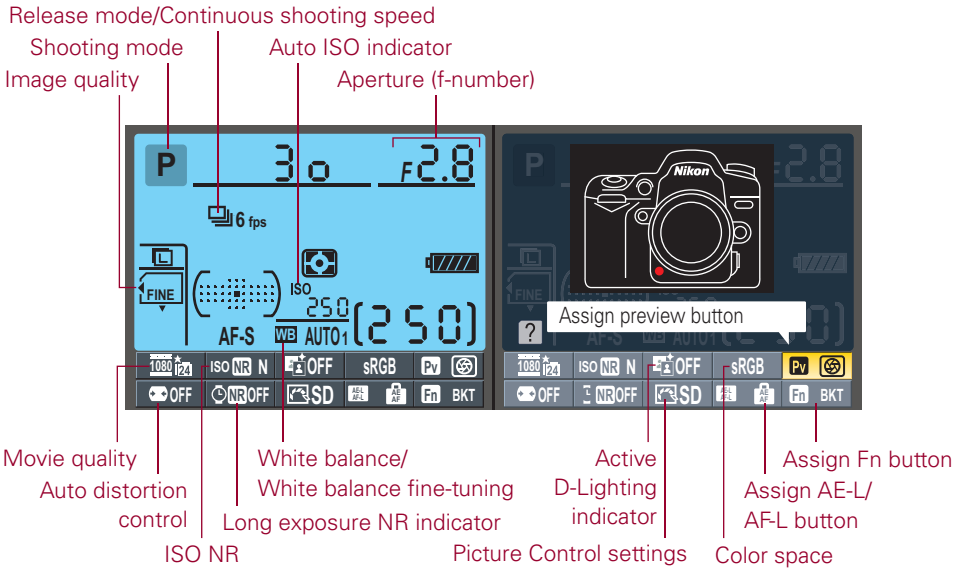
The information remains on display until no buttons have been pushed for about 10 seconds (default) or the Shutter Release or Info button is pressed.

This display shows you everything you need to know about your camera settings. Additionally, the camera has a sensor built in that tells it when you are holding it vertically, and the Info display is shown upright no matter which way you are holding your camera.

- **Shooting mode.** This displays the Shooting mode that your camera is currently set to. This can be one of the scene modes, in which case the display will be the appropriate icon; or one of the semiautomatic modes, such as P, S, A, or M, in which case the display will show the corresponding letter. This display changes when the Mode dial is rotated.
- **Flexible program indicator.** This asterisk appears next to the exposure mode when you're in P, or Programmed Auto, mode. It lets you know that you have changed the default auto-exposure set by the camera to better suit your creative needs.
- **Shutter speed.** By default this displays the shutter speed setting. It also shows a few other things, as follows:
  - **Exposure compensation value.** When you press the Exposure Compensation button and rotate the Sub-command dial, the exposure value (EV) compensation number is displayed.
  - **FEC value.** Pressing the Flash mode button and rotating the Sub-command dial displays the FEC value.
  - **Number of shots in bracketing sequence.** When you press the BKT button, you look here to determine the settings.
  - **Focal length (non-CPU lenses).** When the camera's Function button is set to choose a non-CPU lens number when the Function button is pressed, the focal length of the non-CPU lens is displayed. You must enter the lens data in the Setup menu.
- **Exposure indicator.** When the bars are in the center, you are at the proper settings to get a good exposure; when the bars are to the left, you are overexposed; when the bars are to the right, you are underexposing your image. You can reverse this in CSM f9.

- **Exposure compensation display.** If any exposure compensation is applied, it will show that you have an under- or overexposure on the indicator.
- **Bracketing progress indicator.** When Auto-bracketing is turned on, you can use this to track your progress. The display shows a small line under the 0 (normal), the + side (overexposure), and the – side (underexposure).
- **WB bracketing.** When bracketing is set to WB, three small lines are placed on either side of the zero, indicating each shot to be taken. The line disappears when the shot has been taken.

- **AF-area mode indicator.** This lets you know which AF-area mode is selected and in use.
- **Auto ISO indicator.** This is displayed when the Automatic ISO setting is activated to let you know that the camera is controlling the ISO settings. You can activate Auto ISO in the Shooting menu.
- **K.** This lets you know that there are more than 1,000 exposures remaining on your memory card.
- **Exposures remaining/Manual lens number.** This displays the number of exposures remaining. When the Fn or Preview button is assigned to non-CPU lens data, this displays the focal length data for the selected lens.
- **White balance/White balance fine-tuning.** This is where your WB settings are displayed. If the WB has been changed from the default, an asterisk is shown.



1.7 Info display

- **Image quality.** The image quality settings are displayed here. There are two areas: one for Slot 1 and one for Slot 2.
- **Image size.** This area displays the size settings for JPEG images.
- **Flash mode.** This is where the different flash modes and settings are displayed.
- **Beep indicator.** When the camera is set to beep for AF confirmation (CSM d1), a music note appears here.
- **Multiple exposure indicator.** This icon is displayed when the multiple exposure feature is activated.
- **Bracketing indicator.** This is displayed when the D7000 Auto-bracketing feature is turned on.
- **Interval timer indicator.** When the camera is set to shoot at intervals, this icon is shown.
- **Camera battery indicator.** This shows the charge remaining on the battery that is in the camera.
- **MB-D11 indicators.** When an optional MB-D11 battery grip is being used, this displays the type of battery being used as well as the amount of charge remaining on the battery.
- **GPS connection indicator.** When the option GP-1 is connected to the D7000, this GPS indicator is displayed.
- **Metering.** This displays the metering mode that is in use.
- **Autofocus mode.** This section displays the AF-mode (AF-A, AF-C, AF-S).
- **Copyright information.** The D7000 can be programmed to add copyright information to the EXIF (Exchangeable Image File Format) data of all your images. When this option is turned on, this is displayed.
- **Clock not set indicator.** When this appears, the camera's internal clock has not been set and the time and date will not appear in the EXIF data.
- **Image comment indicator.** You can add a line or two of text into the EXIF data using the Image comment option. This indicator informs you that this feature is on.
- **Release mode/Continuous shooting speed.** This displays the Release mode settings. When the camera is set to a Continuous Release mode the frames per second (fps) is also displayed.
- **Eye-Fi.** When an option Eye-Fi memory card is being used in the camera, this icon is displayed.

- **FV lock.** This appears when the flash exposure has been locked. One of the customizable buttons must be set to FV lock to activate this feature.
- **FEC indicator.** This indicator is shown when the Flash Exposure Compensation has been adjusted.
- **Exposure compensation.** This alerts you when exposure compensation has been added to the settings.

The following are adjustable settings. Pressing the Info button twice gives you access to these common settings so that you can change them quickly. Once you have selected an option, pressing OK brings up the Settings menu.

- **Movie quality.** This allows you to change the resolution quality of the videos.
- **ISO NR.** You can adjust the high ISO noise reduction settings here.
- **Active D-Lighting.** You can change the Active D-Lighting settings using this option.
- **Color space.** This allows you to change the color space from Adobe RGB to sRGB. See Chapter 3 for information on color space.
- **Assign Preview button.** This allows you to change the settings for the Preview button.
- **Auto distortion control.** You can turn this option on or off. Not all lenses are compatible with this feature. If the feature isn't available, the option is grayed out and is not selectable.
- **Picture Control settings.** You can quickly change the Picture Control here.
- **Assign AE-L/AF-L button.** You can assign different functions to the AE-L/AF-L button using this menu option.
- **Assign Fn button.** This is where you select the settings for the Fn button.