Setting Up the EOS Rebel T2i/550D

If you have any experience in photography, then you may already know that the better you know your camera, the greater the chance that you'll be able to react quickly and confidently to photographic opportunities without missing a shot. If you're new to digital SLR cameras, then the T2i/550 may seem intimidating, but, as you'll see, the camera is both easy and fun to master. This chapter is designed to help you learn the EOS Rebel T2i/550 so you know what control to use and when to use it.

In addition, this chapter helps you set up the Rebel to best suit your shooting preferences and to get the best image quality. You'll also learn different ways to review images and protect them from accidental deletion.

Backlighting as well as front lighting created the sense of this flower being lit from within. Exposure: ISO 100, f/16, 1/125 second.

Roadmap to the Rebel T2i/550D

If you've been using the Rebel T2i/550D, then you already know that the most frequently used camera controls are located within finger's reach for quick adjustments as you're shooting. Less frequently used functions are accessible from the camera menus. The following sections will familiarize you with the T2i/550D controls and their names — names that are used throughout the book. You can refer back to these figures as you read the book to locate the controls you need.

Front camera controls

On the front of the camera, the controls that you'll use most often are the Lens Release button and the Depth-of-Field Preview button. And, of course, you'll use the lens mount each time you change lenses.

1.1 Rebel T2i/550D front camera controls

From bottom left to top right, here is a look at the front of the camera:

- **Grip/Battery compartment.** This is the molded area where your hand grips the camera, and it serves as the battery compartment as well.
- **Remote control sensor.** This sensor works with the accessory Remote Control RC-6 that can fire the camera's shutter from up to 16.4 feet (five meters) from the camera. The remote includes the options for immediate or a 2-second delay before shutter firing.
- **Shutter button.** Press this button halfway down to focus on the subject, and then press it completely to make the picture. In addition, when you half-press the Shutter button, the camera sets the aperture and shutter speed based on the current ISO. You'll learn more about focusing and exposure in Chapter 2.
- **Reflex mirror.** This mirror provides a view of the scene when you're composing the image in the viewfinder, and when you press the Shutter button completely, it flips up and out of the optical path to expose the image sensor to make the picture.
- **Lens contacts.** These contacts provide communication between the lens and the camera.
- **Lens Release button.** Press this button to release the lens from the lens mount, and then turn the lens to remove it.
- **Depth-of-Field Preview button.** Press this button to stop down, or adjust, the lens diaphragm to the current aperture (f-stop) so that you can preview the depth of field in the viewfinder. The larger the area of darkness in the viewfinder, the more extensive the depth of field will be. You can also use this button when shooting in Live View. While you press the Depth-of-Field Preview button, you can't change the aperture.

At the lens's maximum aperture, the Depth-of-Field Preview button cannot be depressed because the camera's diaphragm is fully open. The maximum aperture is the widest lens opening for the lens you're using and it varies by lens.

- **Flash button.** Pressing this button in P, Tv, Av, M, and A-DEP shooting modes pops up the built-in flash.
- **Built-in microphone.** The built-in monoaural microphone records sound when you're shooting movies.
- **EF and EF-S lens mount index markers.** The lens mount has a red and a white mark for two types of lenses. The white mark on the lens mount is for Canon EF-S lenses that have a white mark on the lens barrel. EF-S lenses are designed for the

smaller sensor size of the T2i/550D. The red mark on the lens mount is for Canon EF lenses. EF lenses can be used on any Canon EOS camera. Just set the lens on the lens mount and line up the white or red mark on the lens barrel with the same color mark on the lens mount, and then turn the lens to the right to attach it.

- **Built-in flash.** The flash provides illumination either as the main light source or as a fill flash. In Basic Zone shooting modes such as Full Auto, Portrait, and so on, the flash fires automatically. In Creative Zone shooting modes including P, Tv, Av, M, and A-DEP, you have to press the Flash pop-up button to use the built-in flash.
- **Red-eye reduction/Self-timer lamp.** When you have Red-eye reduction turned on, this lamp lights to help reduce the size of the subject's pupils to minimize the appearance of red-eye in the final image.

Top camera controls

Controls on the top of the camera enable you to use your thumb and index finger on your right hand to control common adjustments quickly. Here is a look at the top of the camera.

- **Focal plane mark.** This is the point from which the lens' minimum focusing distance is measured.
- **Hot shoe.** You can mount an accessory Speedlite flash unit here to provide communication between the flash and the Rebel.
- **Mode dial.** Turning this dial changes the shooting mode. Just line up the shooting mode you want to use with the white mark beside the dial.
- **Power switch.** This button switches the camera on and off.
- **ISO speed button.** Pressing this button displays the ISO speed screen on the LCD so that you can change the ISO setting, which determines the sensor's sensitivity to light. In P (Program AE), Tv (Shutter-Priority), Av (Aperture-Priority), M (Manual), and A-DEP shooting modes, you can select Auto ISO to have the camera automatically determine the ISO from 100 to 6400, or you can set the ISO yourself. In all automatic shooting modes such as Portrait and Landscape, the camera automatically sets the ISO between 100 and 3200. Alternately, you can set the highest ISO setting that the Auto ISO option uses. You can also turn on an additional high ISO setting, equivalent to 12800 by setting Custom Function I-2.

1.2 Rebel T2i/550D top camera controls

Custom Functions are detailed in Chapter 4.

- **Main dial.** Turning this dial selects a variety of settings and options. Turn the Main dial to manually select an AF (autofocus) point after pressing the AF-point Selection/Enlarge button; and to set the aperture (f-stop) in Av mode, the shutter speed in Tv and Manual mode, and to shift the exposure program in P mode. Additionally, you can use the Main dial to scroll among the camera menus.
- **Shutter button.** Pressing the Shutter button halfway sets the focus at the active AF point. Simultaneously the camera determines the aperture (f-stop) and/or shutter speed based on the current ISO setting. Pressing the Shutter button completely makes the picture. In any mode except Direct Printing, you can also half-press the Shutter button to dismiss the camera menus and image playback.

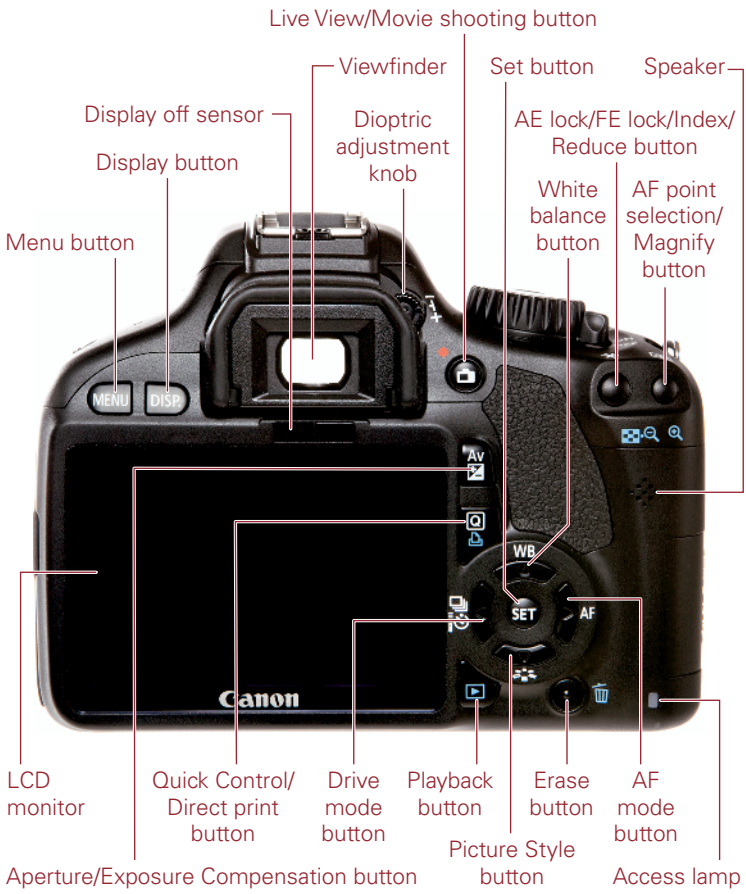
Rear camera controls

The controls on the back of the Rebel T2i/550D enable you to make quick adjustments while you're shooting. Some of the rear camera controls can be used only in P, Tv, Av, M, and A-DEP shooting modes. In automatic camera modes such as Portrait, Landscape, and Sports, the camera sets all of the settings for you, so pressing the AV, WB, and Drive mode selection buttons has no effect. But in P, Tv, Av, or M, and A-DEP shooting modes, these buttons function as described in the following list.

If you're shooting and press a button and nothing happens, check the Mode dial to see if you're using an automatic mode such as Portrait or Landscape. If you want to change the white balance, then turn the Mode dial to P, Tv, Av, M, or A-DEP shooting mode.

Here is a look at the back of the camera.

- **Menu button.** Press the Menu button to display camera menus on the LCD. To move among menu tabs, turn the Main dial or press the left or right cross keys on the back of the camera. (The cross keys are the keys surrounding the Set button.)
- **Display button.** Press this button to turn the LCD display and the current camera settings off and on. If you are playing back images, pressing this button one or more times changes the display to show more or less shooting information and to display one or more histograms displayed next to the image preview.
- **Display off sensor.** This sensor detects when you move the camera to your eye and automatically turns off the LCD display.
- **Dioptric adjustment knob.** Turn this knob to adjust the sharpness for your vision by -3 to +1 diopters. If you wear eyeglasses or contact lenses for shooting, be sure to wear them as you adjust the Dioptric adjustment knob. To make the adjustment, point the lens to a light-colored surface such as a white wall, and then turn the control until the AF points in the viewfinder are perfectly sharp for your vision.
- **Viewfinder.** Look through the viewfinder to view and compose the scene. On the Rebel T2i/550D, the viewfinder offers an approximately 95 percent view of the scene. The viewfinder uses a Precision Matte focusing screen that displays then nine autofocus (AF) points.



1.3 Rebel T2i/550D rear camera controls

- **Live View/Movie shooting button.** Pressing this button enables you to begin shooting in Live View mode, or to shoot movies when the Mode dial is set to Movie shooting mode.
- **Aperture/Exposure Compensation button.** Press and hold this button and turn the Main dial to set Exposure Compensation in P, Tv, Av, and A-DEP shooting modes. In Manual mode, press and hold this button and turn the Main dial to set the aperture.

- **AE lock/FE lock/Index/Reduce button.** Pressing the Shutter button halfway, and then pressing this button enables you to lock the exposure on the point in the scene. Then you can focus on another part of the scene. If you're using the built-in flash, pressing this button locks the flash exposure in the same way. During image playback, you can press this button to display multiple images as an index, or to reduce the size of an enlarged LCD image during image playback.
- **AF point selection/Magnify button.** Press this button to activate the AF points displayed in the viewfinder. As you hold the button and turn the Main dial, you can select one AF point, or you can select all of the AF points to have the camera automatically select the AF point or points used to focus. During image playback, you can press this button to enlarge the image preview to check focus.
- **Speaker.** Plays the audio recorded when you shoot a movie clip. You can adjust the speaker volume by turning the Main dial.
- **Access lamp.** Lights when images are being written to the media card. Do not open the media card door or turn off the camera when this lamp is lit.
- **Erase button.** During image playback, press this button to delete the currently displayed image. Or you can press the left or right cross key to move to another picture to delete.
- **Playback button.** Press this button to display the last image captured on the LCD. In single-image Playback, the display includes an overlay of shooting information on the preview image. Pressing the Index/Reduce button on the top-right back of the camera during playback displays a grid of 2 × 2 or 3 × 3 images that you can scroll through using the Main dial. Press the AF point Selection/Magnify button once or twice to return to single-image display.
- **Quick Control/Direct print button.** Press this button to display the Quick Control screen on the LCD. From the Quick Control screen, you can change exposure and other camera settings. During printing, press this button to transfer all or selected images from the SD card to your computer when the camera is connected to a compatible printer.
- **The LCD monitor.** The LCD monitor displays the camera settings, camera menus, image previews, and the Quick Control Screen.

The four buttons grouped around the Set button are collectively referred to as cross keys. The functionality of the keys or buttons changes depending on whether you're playing back images, navigating camera menus, or changing exposure settings.

During image playback, the left and right cross keys move backward and forward through the images stored on the SD/SDHC/SDXC (media) card. When you navigate through menu options, the up and down cross keys move among options.

Here is a summary of the cross key and Set button functions.

- **AF mode button.** Press this button to choose one of three autofocus modes: One-shot AF (also known as AI Focus) for still subjects, AI Focus AF for subjects that may start to move or move unpredictably such as children and wildlife, or AI Servo AF for tracking focus of moving subjects.
- **Set button.** Press this button to confirm changes you make on the camera menus, and to display submenus.
- **Picture Style button.** Press this button to display the Picture Style screen where you can choose the look of images in terms of contrast, color rendition, saturation, and sharpness. In semiautomatic and manual shooting modes, you can choose Standard, Portrait, Landscape, Neutral, Faithful, or Monochrome Picture styles, and you can customize up to three user-defined styles.
- **White Balance button.** Press this button to display the White Balance screen where you can choose among seven preset White Balance options, or choose Custom white balance.
- **Drive mode button.** Press this button to set the Drive mode. You can choose to shoot one picture at a time, to shoot continuously at 3.7 frames per second (fps), or to shoot in one of the Self-timer/Remote control modes. The maximum burst during continuous shooting is approximately 34 Large/Fine JPEG frames or six RAW frames. During image playback, press this button to move to a previous image.

Side camera controls

On the side of the T2i/550D is a set of terminals under a cover and embossed with icons that identify the terminals, which include:

- **External microphone IN terminal.** This terminal enables the connection of an external stereo microphone that you can use to record sound with videos.
- **Remote control terminal.** This terminal enables connection of an accessory Remote Switch RS-60E3.

- **Audio/video OUT/Digital terminal.** The AV Out terminal enables you to connect the camera to a non-high-definition (HD) television set using the AV cable supplied in the camera box to view still images and movies on the TV.
- **HDMI mini OUT terminal.** This terminal is used to connect the camera to an HD television using the accessory HTC-100 cable to play back still images and movies on the TV.

Lens controls

Depending on the lens you are using, the number and type of controls offered vary. For example, if you are using an Image Stabilized lens, the lens barrel has a switch to turn on Image Stabilization that helps counteract the motion of your hands as you hold the camera and lens. Some lenses offer a switch from autofocus to manual focusing.

1.4 Lens controls

Many Canon lenses offer the Focus mode switch that enables you to switch between autofocus or manual focus. Image Stabilization (IS) lenses offer controls to turn stabilization on or off. Lens controls differ by lens.

Depending on the lens, additional controls may include the following:

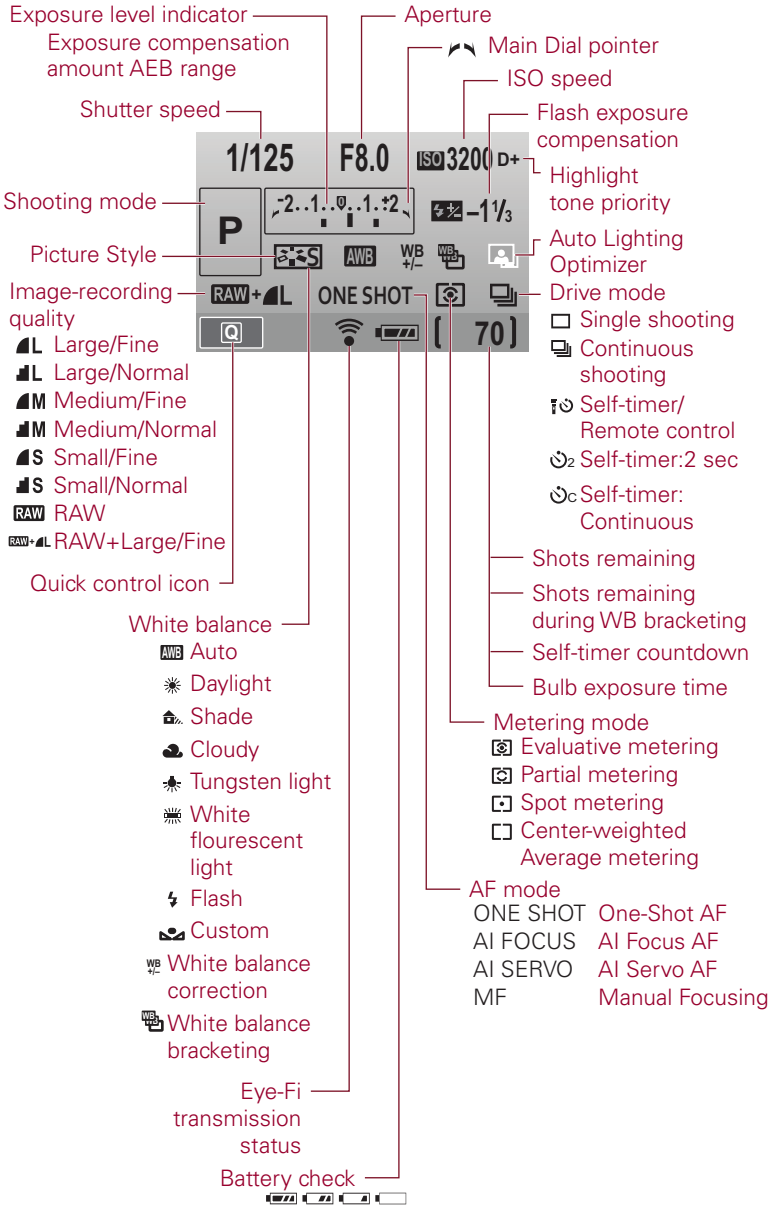
- **Focusing distance range selection switch.** This switch determines and limits the range that the lens uses when seeking focus to speed up autofocusing. The focusing distance range options vary by lens.
- **Image Stabilizer switch.** This switch turns Optical Image Stabilization on or off. Optical Image Stabilization (IS) corrects vibrations at any angle when handholding the camera and lens. IS lenses typically allow sharp handheld images of two or more f-stops over the lens's maximum aperture.
- **Stabilizer mode switch.** Offered on some telephoto lenses, this switch has two modes: one mode for standard shooting and one mode for vibration correction when panning at right angles to the camera's panning movement.
- **Zoom ring.** The zoom ring adjusts the lens in or out to the focal lengths marked on the ring.
- **Focusing ring.** For lenses that have a focusing mode switch, the lens focusing ring can be used at any time regardless of focusing mode by switching to MF on the side of the lens, and then turning this ring to focus.
- **Distance scale and infinity compensation mark.** This shows the lens's minimum focusing distance to infinity. The infinity compensation mark compensates for shifting the infinity focus point resulting from changes in temperature. You can set the distance scale slightly past the infinity mark to compensate.

The LCD

With the T2i/550D, the 3-inch LCD not only displays captured images and current camera settings, but it also provides a live view and focusing screen with Live View and Movie mode shooting. The LCD displays 100 percent coverage of the scene.

Viewfinder display

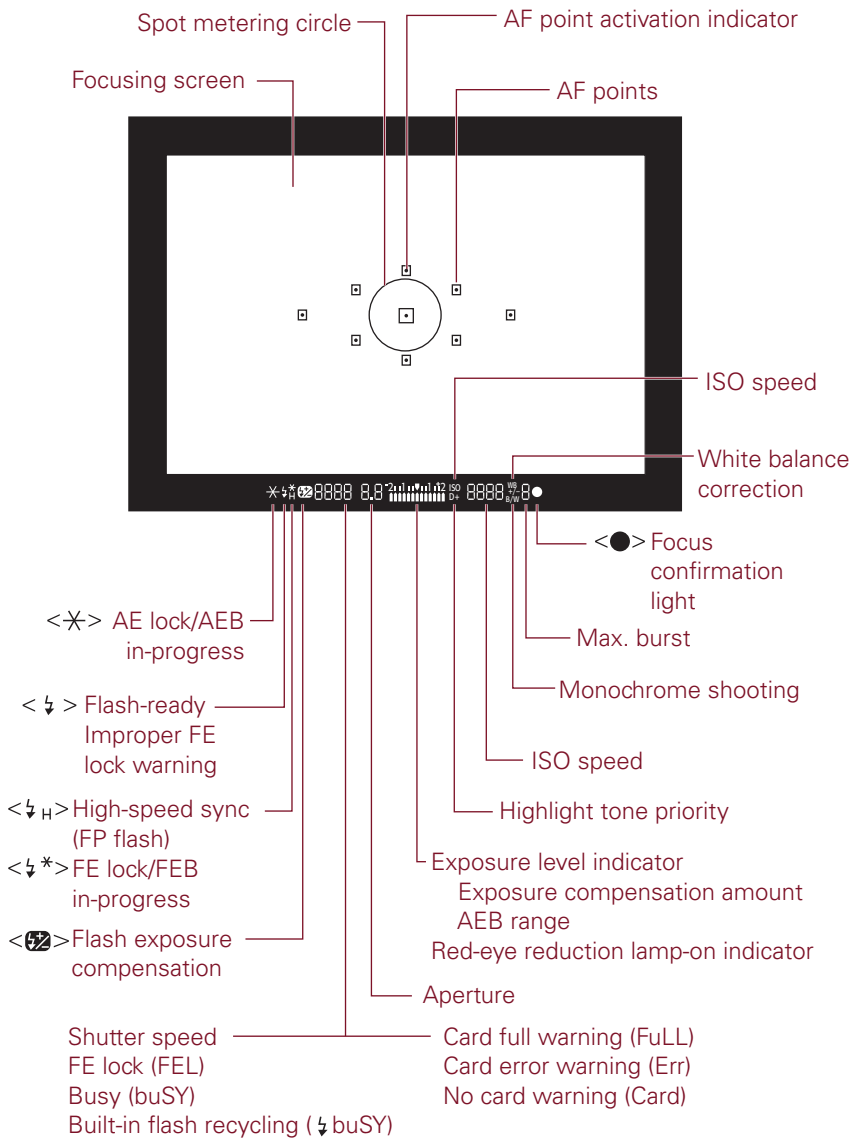
On the Rebel T2i/550D, the optical, eye-level pentamirror viewfinder displays approximately 95 percent of the scene that the sensor captures. In addition, the viewfinder displays the AF points, a 4-percent Spot metering circle that is displayed at the center of the viewfinder, as well as information at the bottom that displays the current shooting settings, a focus confirmation light, and other settings.



1.5 Rebel T2i/550D LCD display with the Shooting settings displayed

Nine AF points are displayed in the viewfinder. When you manually select AF points by pressing the AF-point Selection/Magnify button and turning the Main dial, the AF points display a red dot within the AF point as you cycle through them. If the camera

automatically selects the AF point or points, the selected point or points display(s) with the red dot inside the AF point in the viewfinder when you press the Shutter button halfway down.



1.6 Rebel T2i/550D viewfinder display

You can verify exposure settings, focus, and more in the viewfinder before making a picture. The display changes depending on the shooting mode you're using.

Setting Up the Rebel T2i/550D

You may have already set up basic settings such as the date and time. But be sure to check through this section of the book for settings that you may have missed or want to revise. The settings that I recommend are designed to get the highest resolution images that you can print at full size to take advantage of all the high resolution that the T2i/550D offers.

Many people are afraid that changing camera settings will "mess up" the pictures that they're getting, and that they won't know how to reset the camera if they don't like the changes they've made. Canon provides a reset option, which means that you can always revert to the original settings on the Rebel T2i/550D so that you can start fresh.

To reset the camera to the original settings, follow these steps.

1. **Press the Menu button, and then press the right cross key to select the Setup 3 menu.**
2. **Press the down cross key to select Clear settings, and then press the Set button.**
3. **To reset the camera to factory settings, press the up or down cross key to select Clear all camera settings, and then press the Set button.** The Clear all camera settings confirmation screen appears.
4. **Press the right cross key to select OK.**

About Media Cards

The Rebel T2i/550D accepts SD and SDHC, or Secure Digital High Capacity, SDXC, and Eye-Fi SD media cards. Not all media cards are created equal, and the type and speed of media that you use affects the Rebel T2i/550D's response and performance times including how quickly images are written to the media card, and your ability to continue shooting during the image-writing process. Memory card speed also affects the speed at which images display on the LCD, and how quickly you can enlarge images on the LCD. And with the high-definition video capability of the Rebel, Canon recommends using a Class 6 or higher media card.

In addition, the T2i/550D accepts SDXC memory cards that offer the potential for increased storage capacity over previous SD cards. Eye-Fi SD cards have a built-in Wi-Fi transmitter and internal antenna for wireless, high-speed transfer of images and video from the camera to the computer or to online Web sites from Wi-Fi-enabled locations or from your network. Eye-Fi also supports geotagging and uploading RAW files.

At this writing, SDXC cards are not supported by all computer operating systems. If you insert the card into a computer or card reader and receive a message asking you to format the card, choose Cancel to avoid overwriting the SDXC format. For more information, visit the www.sdcard.org/developers/tech/sdxc/using_sdxc Web site.

The type of file format that you choose also affects the speed of certain tasks. For example, when writing images to the media card, JPEG image files write to the card faster than RAW or RAW + Large JPEG files. JPEG and RAW file formats are discussed in detail later in this chapter.

As you take pictures, the LCD on the Rebel T2i/550D shows the approximate number of images that remain on the media card. The number is approximate because each image varies slightly, depending on the ISO setting, the file format and resolution, the Picture Style, and the image itself (different images compress differently). And as you shoot video, the Rebel displays the recording time on the LCD. Video recording shuts off automatically when the size of the movie file reaches 4GB. For still and video shooting, an 8GB card is a good size to consider.

When you buy a new memory card, always format it in the camera and never on your computer. But first off-load all images to the computer because formatting erases images even if you've set protection on them. Also be sure to format cards that you've used in other cameras when you begin using them in the Rebel T2i/550D. Formatting a media card in the camera also cleans any image-related data freeing up space on the card, and it manages the file structure on the card so the Rebel T2i/550D and media card work properly together.

To format a card in the camera, be sure that you download all images to your computer first, and then follow these steps:

1. **Press the Menu button, and then turn the Main dial to select the Setup 1 menu.**
2. **Press the down or up cross key to select Format, and then press the Set button.** The Format screen appears asking you to confirm that you want to format the card and lose all data on the card.

   You can optionally choose the Low-level format option that erases the recordable sectors on the card. While Low-level format takes a bit longer, it can improve the performance of the card, and it ensures that all information on the card is permanently erased.

3. **To do a low-level format, press the Erase button to place a check mark next to Low level format, and then press the right cross key to select OK.**
4. **Press the Set button.** The camera formats the card, and then displays the Setup 1 menu.

It is generally a good idea to format media cards every few weeks to keep them clean.

To avoid taking pictures when no memory card is in the camera, press the Menu button, choose the Shooting 1 menu, and then press the down cross key to select Release shutter without card. Press the Set button, press the down cross key to select Disable, and then press the Set button again. Now you cannot release the shutter unless a media card is in the camera.

Avoid Losing Images

When the camera's red access light — located on the back of the camera — is blinking, it means that the camera is recording or erasing image data. When the access light is blinking, do not open the SD card slot cover, do not attempt to remove the media card, and do not remove the camera battery. Any of these actions can result in losing images and damage to the media card. There is an audible warning to let you know that images are being written to the card, but make it a habit to watch for the access light anyway to know not to open the media card slot cover or turn off the camera.

Choosing the File Format and Quality

The file format, either JPEG or RAW, and the JPEG quality level that you choose determine not only the number of images that you can store on the media card, but also the sizes at which you can later print images from the Rebel T2i/550D.

The Rebel T2i/550D delivers very high-quality images that make beautiful prints at approximately 14.5 × 21.6 inches. Even if you don't foresee printing images any larger than 4 × 5 inches, you may get a once-in-a-lifetime shot and want to print it as large as possible. For this reason, and to take advantage of the Rebel T2i/550D's fine image detail and high resolution, you'll want to choose a high-quality setting and leave it there for all your shooting. The high image-quality settings take more space on the media card, but the price of the card is small compared to missing out on a great image that you can't print at the maximum image size.

The JPEG quality options on the Rebel T2i/550D are displayed with icons on the Quality screen that indicate the compression level of the files and the recording size. For example, a solid quarter circle and the letter "L" indicate the largest JPEG file size and the solid quarter circle indicates the lowest level of file compression for the highest image quality. Likewise, a jagged quarter circle indicates higher compression levels and relatively lower quality, and "M" indicates medium quality. File formats and compression are discussed next.

JPEG format

JPEG, an acronym for Joint Photographic Experts Group, is a popular file format for digital images that provides not only smaller file sizes than the RAW files, but it also offers the advantage of being able to display your images straight from the camera on any computer, on the Web, and in e-mail messages. To achieve the small file size, JPEG compresses images, and, in the process, it discards some data from the image — typically data that you would not easily see. This characteristic of discarding image data during compression gains JPEG its *lossy* moniker. The amount of data discarded depends on the level of JPEG compression. High compression levels discard more image data than low levels. The higher the compression level, the smaller the file size and the more images that you can store on the media card, and vice versa.

As the compression level increases to make the file size smaller, more of the original image data is discarded, and the image quality degrades. Compression also introduces defects, referred to as *artifacts*, which can create a blocky, jagged look, blurring, and diminished color fidelity in the image. At low compression levels, artifacts are minimal, but as the level increases, they become more noticeable and objectionable. You'll see the effects of high compression ratios when you enlarge the image to 100 percent in an image-editing program on the computer. To get the highest-quality images, use the lowest compression and the highest quality settings, such as Large/Fine. If space on the card is tight, then use the next lower setting, Large/Normal. If you use lower quality settings, just be aware that the image quality diminishes accordingly.

If you edit JPEG images in an editing program, image data continues to be discarded each time you save the file. I recommend downloading JPEG files to the computer, and then saving them as TIFF (Tagged Image File Format) or PSD (Photoshop's file format) files. TIFF and PSD, available in Adobe's Photoshop image-editing program, are lossless file formats.

When you shoot JPEG images, the camera's internal software processes, or edits, the images before storing them on the media card. This image preprocessing is an advantage if you routinely print images directly from the SD card, and if you prefer not

to edit images on the computer. And because the T2i offers a variety of Picture Styles that change the way that image contrast, saturation, sharpness, and color are rendered, you can get very nice prints with no editing on the computer.

The JPEG quality options reflect the megapixels recorded for the image. At the Large settings, images are recorded at 17.9 megapixels. The Medium quality options record 8 megapixels, while Low quality options record 4.5 megapixels.

Picture Styles are detailed in Chapter 3.

RAW format

RAW files store image data directly from the camera's sensor to the media card with a minimum of in-camera processing. Unlike JPEG images, which you can view in any image-editing program, you must view RAW files using the Canon Image Browser, Digital Photo Professional, or another RAW-compatible program such as Adobe Bridge and Camera Raw. Most operating systems, such as the Mac, provide regular updates so that you can view RAW images on your computer without first opening them in a RAW conversion program. To print and share RAW images, you must first convert them by using a program that supports the T2i/550D's RAW file format, and then save them as a TIFF or JPEG file. You can use Canon's Digital Photo Professional program or a third-party RAW-conversion program to convert RAW images.

With all these caveats, you may wonder why you'd choose RAW shooting. The answer is simple and compelling — RAW files offer the highest image quality and the ultimate flexibility in correcting and perfecting the final image. With RAW images, you can change key camera settings after you take the picture. For example, if you didn't set the correct white balance or exposure, you can change it when you convert the image on the computer.

Canon includes its Digital Photo Professional program on the disc included in the Rebel T2i/550D box, and that program enables you to convert RAW files.

In addition, you can adjust the image brightness, contrast, and color saturation — in effect, you have a second chance to correct underexposed or overexposed images, and to correct the color balance, contrast, and saturation after you take the picture. The only camera settings that the Rebel T2i/550D applies to RAW files are aperture, ISO, and shutter speed. Other settings such as White balance, Picture Style, and so on are "noted," but not applied to the file. As a result, you have a great deal of control over how image data looks when you convert a RAW image.

Because RAW is a lossless format (no loss of image data), image quality is not degraded by compression. However, RAW files are larger, so you can store fewer RAW images on the media card than JPEG images.

RAW files are denoted with a .CR2 file name extension. After converting the RAW data, you can save the image in a standard file format such as TIFF or JPEG.

RAW + JPEG

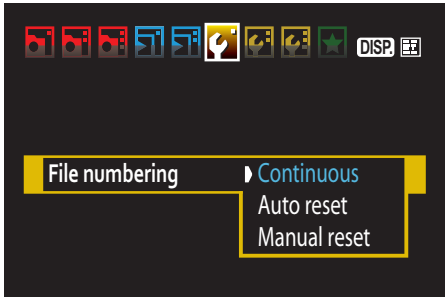
On the Rebel T2i/550D, you can also choose to capture both RAW and Large/Fine JPEG images simultaneously. The RAW+JPEG option on the image Quality screen is handy when you want the advantages that RAW files offer, and you also want a JPEG image to quickly post on a Web site or to send in e-mail. If you choose RAW+JPEG, both images are saved in the same folder with the same file number but with different file extensions. RAW files have a .CR2 extension, and JPEG files have a .JPG extension.

To set the image quality, follow these steps:

1. **Press the Menu button, and then turn the Main dial to select the Shooting 1 menu.**
2. **Press the down or up cross key to select Quality.**
3. **Press the Set button.** The Quality screen appears with the currently selected quality setting displayed along with the image dimensions in pixels and the approximate number of images you can store on the current media card in the camera.
4. **Press the right or left cross key to select the size and quality that you want.**
5. **Press the Set button.**

Changing File Numbering

When you begin shooting images, the Rebel T2i/550D automatically creates a folder on the SD/SDHC card to store the images. The folder is named 100Canon, and you see the folder when you download images from the camera to the computer. In addition, the camera numbers the images and assigns prefixes and file extensions. Both JPEG and RAW files begin with the prefix IMG_. Movie files begin with MVI_ and have a .MOV file extension.



1.7 The File numbering options screen

While much of the file management on the camera is automatic, you can choose how the camera numbers images, and your choice can help you manage images on your computer. The file numbering options are: Continuous, Auto reset, and Manual reset. Here is how each file numbering option works.

Continuous file numbering

When you begin using the T2i/550D, the camera automatically numbers images sequentially. When you replace the media card, the camera remembers the last highest image number and continues numbering from the last file number. Images are numbered sequentially using a unique, four-digit number from 0001 to 9999. The camera continues sequential numbering until you shoot image number 9999. At that point, the camera creates a new folder named 101, and images you shoot restart with number 0001.

This file-numbering sequence continues uninterrupted until you insert a memory card that already has images on it. At that point, the T2i/550D notes the highest file number on the media card, and then uses the next higher number when you take the next image — provided that the number is higher than the highest image number stored in the camera's memory. Stated another way, the camera uses the highest number that is either on the media card or that is stored in the camera's internal memory. Then the camera uses that number to continue file numbering. If it is important to you that files be numbered consecutively, then be sure to insert formatted/empty media cards into the camera.

An advantage of Continuous file numbering is that, to a point, this file-numbering option ensures unique file names, making managing and organizing images on the computer easier because there is less chance that images will have duplicate file names.

Now is a good time to create a system of image folders on your computer. I know from experience that the time spent creating a solid file system for storing images pays big dividends over time.

Auto reset

With this file-numbering option, you can have the file number restart with 0001 each time you insert a different media card. If the media card has images stored on it, then numbering continues from the highest image number stored on the card. So if you want the images to always begin at 0001 on each media card, then be sure to insert a freshly formatted media card each time you replace the card.

If you like to organize images by media card, Auto Reset is a good option. However, be aware that multiple images that you store on the computer will have the same file name. This means that you should create separate folders on the computer and follow scrupulous folder organization to avoid file name conflicts and potential overwriting of images that have the same file name.

Manual reset

If you choose Manual reset, then the camera first creates a new folder on the media card, and then it saves images to the new folder starting with file number 0001. After Manual reset, file numbering returns to Continuous or Auto reset — whichever option you used previously.

The Manual reset option is handy if you want the camera to create separate folders for images that you take over a span of several days.

On the Rebel T2i/550D, up to 999 folders can be created automatically by the camera with up to 9,999 images stored in each folder. If you reach these capacities, a message appears telling you to change the media card even if there is room remaining on it. Until you change the media card, you can't continue shooting.

To change the file-numbering method on the T2i/550D, follow these steps:

1. **Press the Menu button, and then turn the Main dial to select the Setup 1 menu.**
2. **Press the down or up cross key to select File numbering, and then press the Set button.** Three file-numbering options appear with the current setting highlighted.
3. **Press the down cross key to select Continuous, Auto reset, or Manual reset, and then press the Set button.** The option you choose remains in effect until you change it with the exception of Manual reset as noted previously.

Additional Setup Options

There are a number of handy setup options that can make your shooting easier and more efficient. You may have already set some of these options, but in case you missed some, you can check Table 1.1 and see which ones you want to set or change.

The additional setup options are typically those that you set up only once, although there are some that you may revisit in specific shooting scenarios. For example, I prefer to turn on the autofocus confirmation beep in most shooting situations. But at a wedding or event when the sound of the beep is intrusive, I turn it off.

Also, you may prefer to have vertical images automatically rotated on the LCD to the correct orientation. However, this rotation makes the LCD image smaller, so you may prefer to rotate vertical images only for computer display.

Table 1.1 provides a guide for these additional setup options. If you don't see an option listed in the table, check to see which shooting mode you've set on the Mode dial. Some options are not available in the automatic shooting modes such as Portrait, Landscape, Sports, and so on. If an option isn't available, just change the Mode dial to P, Tv, Av, M, or A-DEP to access the option. In other instances, the options are detailed in later chapters of this book.

To change these options, press the Menu button, and then follow the instructions in the subheadings in Table 1.1.

Table 1.1: Additional Setup Options

Turn the Main dial to choose this Menu tab.	Press a cross key to select this Menu option.	Press the Set button to display these Menu Sub-options on-screen.	Press a cross key to select the option you want, and then press the Set button.
Shooting 1	Beep	Enable/Disable	Choose On for audible confirmation that the camera achieved sharp focus. Choose Off for shooting scenarios where noise is intrusive or unwanted. The beep is also used for the Self-time Drive mode.
	Release shutter without card	Enable/Disable	Choose Disable to prevent inadvertently shooting when no media card is inserted. The Enable option is marginally useful, and then only when gathering Dust Delete Data.
	Image Review	Off, 2, 4, 8 sec., and Hold	Longer durations of 4 or 8 seconds to review LCD images have a negligible impact on battery life except during travel when battery power is at a premium. I use 4 sec. unless I'm reviewing images with a subject, then I choose 8 sec.

Turn the Main dial to choose this Menu tab.	Press a cross key to select this Menu option.	Press the Set button to display these Menu Sub-options on-screen.	Press a cross key to select the option you want, and then press the Set button.
Playback 1	Rotate		Choose this option to rotate vertical images to the correct orientation on the LCD only, albeit at a smaller size. You can rotate by 90 or 270 degrees. You can use this option for thumbnail Index view as well. Movies cannot be rotated. If you set the Auto rotate option (below), you do not need to use this option.
Setup 1	Auto Power off	30 sec., 1, 2, 4, 8, 15 min., Off	This setting determines when the camera turns off after you haven't used it. Shorter times conserve battery power. To turn the camera back on, lightly press the Shutter button or press the Menu, DISP., a cross key, and so on. Even if you choose the Off option, the LCD turns off automatically after 30 minutes.
	Auto rotate	On the LCD and computer, On for the computer only, or Off	Two On options let you choose to automatically rotate vertical images to the correct orientation on the LCD and computer monitors, or only on the computer monitor. If you choose the first option, the LCD preview image is displayed at a reduced size. Or choose Off for no rotation on the camera or computer.
	LCD auto off	Enable, Disable	Enable is the default that turns the LCD off as you move the camera to your eye to avoid the bright monitor interfering with seeing through the viewfinder. If you want the LCD monitor to remain on, choose Disable.
	Screen color	1, 2, 3, or 4	Choose the screen color for the Shooting settings screen.
	Eye-Fi settings	Eye-Fi Trans (Enable/Disable), and Connection info.	This menu option is available only when you're using an Eye-Fi SD card in the camera. Choose the Enable option to allow automatic wireless image or movie file transmission. Connection info. displays the access point and MAC address information as well as other error messages.

continued

Table 1.1: Additional Setup Options *(continued)*

Turn the Main dial to choose this Menu tab.	Press a cross key to select this Menu option.	Press the Set button to display these Menu Sub-options on-screen.	Press a cross key to select the option you want, and then press the Set button.
Setup 2	LCD brightness	Seven levels of brightness	Choose this menu option to display a screen on which you can select from one to seven levels of LCD brightness.
	Sensor Cleaning	Auto Cleaning (Enable/Disable), Clean now (Cancel/OK), Clean manually (Cancel/OK)	Sensor cleaning is performed when you turn on and turn off the camera. To stop automatic cleaning, choose Disable. The Clean now option enables you to manually have automatic cleaning performed when you choose this option, and select OK. Clean manually locks up the mirror and shutter so that you can clean the sensor yourself.
Setup 3	Clear Settings	Clear all camera settings Clear all Custom Func. (C.Fn.) Cancel	Choose the Clear all camera settings option to reset the camera settings back to the manufacturer's default settings. Choose Clear all Custom Func. (C.Fn.) to reset all Custom Function settings to manufacturer's original settings.
Firmware			Displays the current firmware version. Choose this option to install a newer firmware version.

Adding a Copyright to Images

Copyright identifies your ownership of images. On the T2i/550D, you can add your copyright information to the metadata that is embedded with each image that you shoot.

To complete the copyright process, register your images with the United States Copyright Office. For more information, visit www.copyright.gov.

To enter your copyright and name on your images, follow these steps.

1. **Press the Menu button, turn the Main dial to select the Setup 3 tab, and then highlight Copyright information.**

2. **Press the Set button.** The Copyright information screen appears.
3. **Press the up or down cross key to highlight the option you want such as Enter author's name or Enter copyright details, and then press the Set button.** A screen appears where you can enter the name or details.
4. **Press the Q button to activate the keyboard portion of the screen, and then left or right cross key to move the cursor to the letter you want to enter.**
5. **Press the Set button to insert the letter in the top portion of the screen.** If you make a mistake and want to delete a character, press the Erase (trash can) button.

1.8 The author name entry screen

6. **Repeat step 5 until the full name is entered.**
7. **Press the Menu button to return to the previous screen where you can choose the second to enter copyright details or the author name, whichever you didn't choose in Step 3.** You can cancel entering text by pressing the Display button. To display the copyright, repeat Steps 1 and 2 above, and in Step 3, choose Display copyright info.

If you need to delete the copyright information, choose Delete copyright information on the Copyright information screen on the Setup 3 menu.

Viewing and Finding Images

On the Rebel T2i/550D, you can not only view images after you take them, but you can also magnify images to verify that the focus is sharp, display and page through multiple images that you have stored on the media card, check the histogram and exposure information, or watch images as a slide show. The following sections describe viewing options and suggestions for using each option.

You can also play back movies on the LCD, as detailed in Chapter 6.

Single-image playback

Single-image playback is the default playback mode where the camera displays one image at a time on the LCD. Canon sets the initial display time to 2 seconds to maximize battery life, but a longer display time of 4 seconds is more useful. And, if you are reviewing images with a friend or the subject of the picture, the 8-second option may be best. Alternately, you can choose the Hold option that displays the image until you dismiss it by lightly pressing the Shutter button.

To turn on image review, press the Playback button on the back of the camera. If you have multiple pictures on the media card, you can use the left and right cross keys to move forward and backward through the images.

If you want to change the length of time that images display on the LCD, follow these steps:

1. **Press the Menu button.**
2. **Turn the Main dial to select the Shooting 1 menu, and then press the down cross key to select Image review.**
3. **Press the Set button.** The image review time options appear.
4. **Press the down cross key to select Off, 2, 4, 8 sec., or Hold.** The numbers indicate the number of seconds that the image displays. Off disables image display, while Hold displays the image until you dismiss it by lightly pressing the Shutter button.
5. **Press the Set button.** Lightly press the Shutter button to return to shooting.

Index display

Index display shows thumbnails of four or nine images stored on the media card at a time on the LCD. This display is handy when you need to ensure that you have a picture of everyone at a party or event, or to quickly select a particular image on a card that is full of images.

To turn on the Index display, follow these steps:

1. **Press the Playback button on the back of the camera.**
2. **Press the AE/FE Lock button on the back of the camera.** This button has an asterisk displayed above it. The LCD displays the last four images stored on the media card. If you don't have four images on the card, it displays as many images as are stored on the card.

3. **Press the cross keys to move among the images.** The selected image has a border around it. You can press the AE/FE Lock button again to display an index page of nine images.
4. **To move through individual images, press a cross key, or to move to the next page of images, turn the Main dial.**
5. **Press the Magnify button one or more times to return to single-image display.**
6. **Lightly press the Shutter button to cancel the display.**

Slide show

When you want to sit back and enjoy all the pictures on the media card, the Slide show option plays a slide show of images on the card. Use this option when you want to share pictures with the people that you're photographing, or to verify that you've taken all the shots that you intended to take during a shooting session.

During the slide show, the camera does not go to sleep to interrupt the image or movie playback.

You can start a slide show by following these steps:

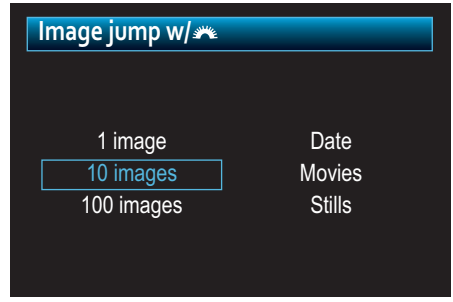
1. **Press the Menu button, and then turn the Main dial to select the Playback 1 menu.**
2. **Press the down or up cross key to select Slide show, and then press the Set button.** The Slide show screen appears.
3. **Press the up or down cross key to select All images, and then press the Set button.** Up and down arrow controls appear to the right of the All images text.
4. **Press the up or down cross key to select from the options: All images, Stills, Movies, or Date, and then press the Set button.** If you select Date, press the Display button, and then press the up or down cross key to select the date from the Select date screen. Then press the Set button.
5. **Press the down cross key to select Set up, and then press the Set button.** The Slide show screen appears with options to set the Display time and Repeat.
6. **Press the down cross key to select Display time, and then press the Set button.** The Play time options appear and are 1, 2, 3, 5, 10, or 20 seconds.
7. **Press the down or up cross key to select the Display time duration you want, and then press the Set button.**

8. **Press the down cross key to select Repeat, and then press the Set button.**
9. **Press the up or down cross key to select Enable or Disable for the Repeat option, and then press the Set button.**
10. **Press the Menu button, and then press the down cross key to select Start.**
11. **Press the Set button to begin the slide show.** You can pause and restart the slide show by pressing the Set button. If you're playing back movies, turn the Main dial to adjust the volume. Press the Menu button to stop the slide show and return to the Slide show screen.

Image jump

When you have a lot of images on the media card or you want to find only the movies or only the still images on the card, you can use Image jump on the Playback 2 menu. Then you can choose to move through images by 1, 10, or 100 images at a time, or find images by date, movies, or still (images).

Here is how to choose the jump method to move through images:



1.9 The Image jump options screen

1. **Press the Menu button, and then turn the Main dial to select the Playback 2 menu.**
2. **Press the up or down cross key to highlight Image jump w/ [Main dial], and then press the Set button.** The Image jump with Main dial screen appears. You can choose 1, 10, 100 images, or Date, Movies, Stills (still images).
3. **Press the up or down cross key to select the jump method, and then press the Set button.** The Playback 2 menu appears.
4. **To jump through images, press the Playback button on the back of the camera.** The most recent image is displayed on the LCD.
5. **Turn the Main dial to jump through images by the option you selected in Step 3.** The LCD displays the jump method and relative progress through the images on the card at the lower right of the LCD. You can change the jump option by pressing the up cross key.

Using the Display button

In image playback mode, you can use the Display button to sequence through different displays in Playback mode. In Single-image playback mode, press the Display button once to display basic shooting information overlaid on the image preview. Press it again to display shooting information, a small image preview, and the image brightness histogram. Press it once more to display abbreviated shooting information with the RGB and brightness histograms. Or press the Display button again to return to single-image review with minimal shooting information displayed. You can use the cross keys to move forward and backward through pictures in this display.

Displaying images on a TV

Viewing images stored on the media card on a TV is a convenient way to review images at a large size, particularly when traveling. The video cable to connect the camera to a non-HD TV is included in the T2i/550D box. If you want to view images on an HD TV, you need to buy an HDMI Cable HTC-100. Before connecting the camera to the TV, you need to set the video system format using the Setup 2 menu on the camera. The following instructions are for both HD (Hi-Definition) and non-HD TVs.

1. **Press the Menu button, and then turn the Main dial to select the Set-up 2 menu.**
2. **Press the down key to select Video system, and then press the Set button.** The camera displays the NTSC and PAL options.

NOTE

NTSC is the analog television system in use in the United States, Canada, Japan, South Korea, the Philippines, Mexico, and some other countries, mostly in the Americas. PAL is a color encoding system used in TV systems in parts of South America, Africa, Europe, and other countries.

3. **Highlight the system you want, and then press the Set button.**
4. **Turn off the TV and the camera.**
5. **Attach the AV cable or the HDMI cable to the terminals detailed below.** You cannot use the camera's Video Out and HDMI Out terminals simultaneously.
    - For a non-HD TV. Attach the AV cable to the camera's A/V Out/Digital terminal, and then connect the other end of the video cable to the TV set's Video In terminal and to the audio In terminal.

- For an HD TV. Connect the HDMI cable to the camera's HDMI OUT terminal with the plug's HDMI MINI logo facing the front of the camera, connect the other end to the TV's HDMI IN port.

6. **Turn on the TV, and then switch the TV's video input to the connected port.**
7. **Turn the camera's power switch to the ON position.**
8. **Press the Playback button.** Images are displayed on the TV but not on the camera's LCD monitor. When you finish viewing images, turn off the TV and the camera before disconnecting the cables.

You can use the previous steps to not only display images stored on the media card on the TV, but also to use the TV to display what would appear on the LCD during both general shooting and when you're shooting in Live View.

Erasing and Protecting Images

For those who keep multiple images on media cards for prolonged periods of time, it's important to use options on the T2i/550D that enable you to delete images you don't want, and to protect images you do want from accidental deletion. The following sections detail how to erase one or multiple images and how to protect images.

Erasing images

Erasing images is useful provided that you are certain that you don't want the image. From experience, I know that some images that appear to be mediocre on the LCD can very often be salvaged with judicious image editing on the computer. For that reason, I recommend erasing images with caution.

With the Rebel T2i/550D, you can choose to erase images one at a time or you can select individual images to erase, or you can erase all images on the media card. If you want to delete one image at a time, follow these steps:

1. **Press the Playback button on the back of the camera, and then press the left and right cross keys to select the picture that you want to delete.**
2. **Press the Erase button, and then press the right cross key to select Erase.**
3. **Press the Set button to erase the image.** When the access lamp stops blinking, lightly press the Shutter button to continue shooting.

To select and erase a group of individual images that you select, follow these steps:

1. **Press the Menu button, and then turn the Main dial to select the Playback 1 menu.**
2. **Press the down cross key to highlight Erase images, and then press the Set button.** The Erase images screen appears.
3. **Press the up or down cross key to highlight Select and erase images, and then press the Set button.** The last captured image appears on the LCD.
4. **Press the up or down cross key to place a check mark in the box at the top left of the screen.** This marks the image for deletion.
5. **Press the left or right cross key to move to the next image, and repeat Step 4.** Continue this process until all the images you want to delete are marked with a check mark.
6. **Press the Erase button on the back of the camera.** The Erase images screen appears with a confirmation message asking if you want to erase the selected images.
7. **Press the right cross key to select OK, and then press the Set button.** All check-marked images are erased.

Protecting images

To ensure that important images are not accidentally deleted, you can protect them. Setting protection means that no one can erase the image when using the erase images options.

Even protected images are erased if you or someone else formats the media card.

You can protect an image by following these steps:

1. **Press the Menu button, and then turn the Main dial to select the Playback 1 menu.**
2. **Press the up or down cross key to select Protect images, and then press the Set button.** The last image taken is displayed on the LCD with a protection and a SET icon in the upper-right corner. If this isn't the image you want to protect, press the left or right cross key to display the image you want to protect.

3. **Press the Set button to protect the displayed image.** A protection icon denoted by a key appears above the thumbnail display and to the left of the image number.
4. **Press the left or right cross key to scroll to other images that you want to protect, and then press the Set button to add protection to the images.** If you want to remove protection, scroll to a protected image, and then press the Set button. Protection is removed and is indicated by the protection icon being removed.