Canon T2i

Canon 550D

**Simple
Techniques
For Taking
Great Photos** *And Movies*

Canon

EOS
REBEL
T2i

CANON LENS EF 50mm

Stay Focused Guide Canon T2i Editors

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Contents

Fixing Photos That Are Too Dark 69

Fixing Photos That Are Too Light 93

Fixing Flash Photos.. 105

Taking Better Nighttime Photos 119

Introduction

You're the proud owner of a new Canon T2i (also called the Canon 550D) digital SLR camera. It's loaded with features that are capable of capturing great photos. You've used it a few times but you're not getting the results that you know are possible. Now you'd like to find out how to turn your snapshots into gallery quality photos.

Unlike other guides that treat the camera as a technical gadget requiring confusing explanation, this **Stay Focused Guide** is for those picture takers who want to solve common shooting problems and capture the best photos that their cameras promise.

We answer the questions standing between you and the perfect photo that's within your grasp. We explain the way out of the many annoying problems that come up as you learn to use the many features that set your advanced digital SLR apart from the point-and-shoot variety cameras. We won't confuse the explanations with any high tech jargon; we use easy-to-understand English. Furthermore, we illustrate the answers and show you before/after photos so that you can instantly see the solution.

Boosting Your Photography IQ

You don't have to be a camera whiz when first learning to use your digital SLR.

But understanding a few things about how it works will help you jump-start your photography IQ.

Read this section to learn a few photography basics or move to the next section if you'd rather skip the fundamentals.

In days gone by when film was king, if you wanted to take pictures with an SLR camera, you'd first have to learn a few *fundamentals of photography* to get started. You would need enough know-how to make the appropriate camera settings to take a good photograph.

Fortunately, today's digital SLRs have marvelous brains which make picture taking so much simpler. For many scenes, you can just turn it on and start snapping away. The myriad of advanced features of your Canon T2i lessens the need for you to understand how the camera decides how to best take your photograph.

With such smarts built right into the camera, why do we include a beginner's section?

We know that many of you will want to skip this section and rely on the technical prowess of your camera to make the decisions for you. But others may want to understand how the camera makes many of its automatic decisions and what they can do to effect these to their benefit and produce even better quality photos.

If you'd like to stay with us, keep reading. Otherwise skip ahead.

Film is no longer king. Rather, the digital camera's sensor is king. The sensor in the Canon T2i is a large set of electronic eyes that are sensitive to light much the same as the film's surface is sensitive to light. To put it simply, the key to a good photograph is to ensure that the camera's sensor captures the proper *exposure* — the correct amount of light for the camera to record an ideal image.

You Canon T2i has many different features and a good many of them are there to determine the proper exposure for a given scene. The three main controls that affect exposure are:

❖ Aperture

❖ Shutter speed

❖ ISO setting

There's one more topic that we'll mention — a topic that isn't directly concerned with exposure. However, understanding *depth of field* will definitely boost your photo IQ.

Aperture

When taking a photograph, the light reflecting from your scene passes through the lens on its way to the sensor in your T2i. Simply put, the lens has two jobs to do: *focus* the rays of light that pass through and *control* the amount of light that passes through. The glass in the lens is responsible for focusing the light. The aperture, a mechanical device within the lens, controls the amount of light passing through it by opening wider or closing narrower.

> The aperture controls the amount of light passing through it by opening wider or closing narrower. In other words, the aperture is the lens opening. The larger the opening, the more light that can pass through.

f-2
Aperture f-2 lets lets most light pass through
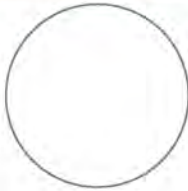
f-8
Aperture f-8 lets less light pass through

f-4
Aperture f-4 lets a lot of light pass through

f-16
Aperture f-16 lets very little light pass through

To say it a different way, the aperture is the lens opening. The larger the opening, the more light that can pass through. In most situations, the Canon T2i automatically makes the opening wider or narrower as it adjusts the exposure for your particular scene.

To get a little more technical, the measurement of the lens aperture is referred to as an f-stop. Let's see how the T2i refers to the aperture.

Power on your camera and turn the Mode Dial to Av mode. Spin the Main Dial and you'll see that the large value in the top right of the LCD changes to display f-5.6, f-8.0 or f-11.0, for example. A smaller value (f-5.6) allows more light to pass through the lens than a larger value (f-8.0). These values may be confusing since a smaller value represents a larger aperture (opening) and a larger value represents a smaller aperture (opening).

Flip the power switch to the "ON" position.

Turn the Mode Dial so that Av (Aperture Priority) is the current mode.

Spin The Main Dial left or right to adjust the aperture (Av mode) settings.
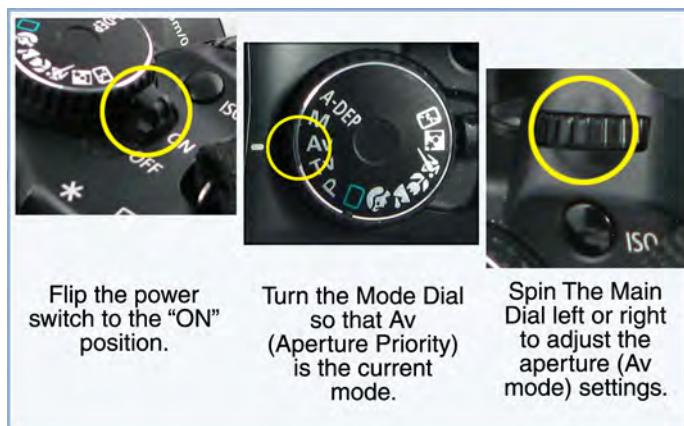
When you press the shutter to capture a scene, the lens opening is set to the proper f-stop. Here's an illustration that shows openings representing two different f-stops.

When you press the shutter to capture a scene, the lens opening is set automatically to the proper f-stop. In this illustration, the openings representing the two different f-stops are f-4.0 (left) and f-8.0 (right).

Aperture opening of f-4.0 corresponds to the f-stop set in AV Mode

Aperture opening of f-8.0 corresponds to the f-stop set in AV Mode
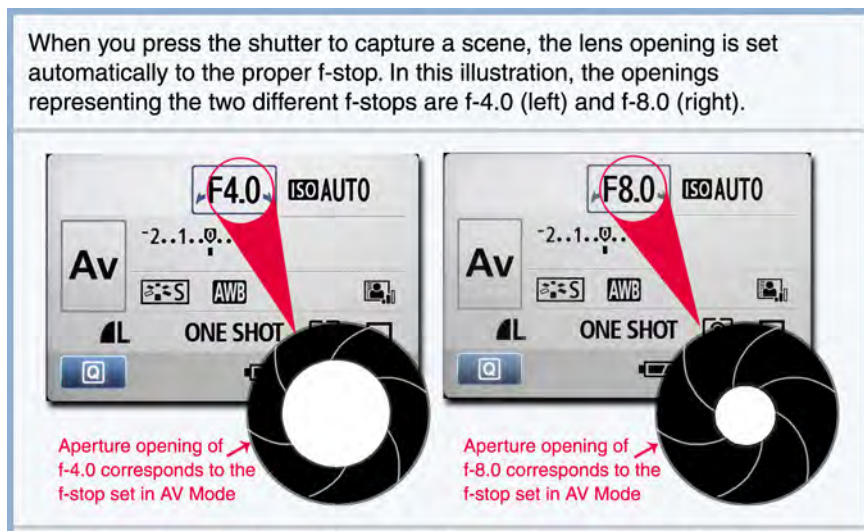
So when talking about f-stops, the rule is to use a smaller f-stop to allow more light to reach the sensor and use a larger f-stop to allow less light to reach the sensor.

Shutter Speed

The shutter is a mechanical device inside the camera positioned directly in front of the sensor. It's electronically controlled to open and then close for a varying length of time. This time period is known as the camera's *shutter speed*.

A shutter that opens for only a short time allows less light to reach the sensor than a shutter than opens for a longer time. Let's say this a different way: *a slow shutter speed implies a longer exposure time while a fast shutter speed implies a shorter exposure time.*

Let's see how the T2i refers to the shutter speed. Power on your camera and turn the Mode Dial to Tv mode.
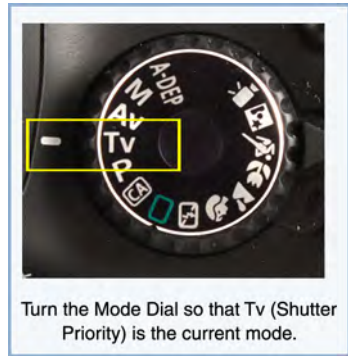
Spin the Main Dial and you'll see that the value in the upper left of the LCD changes

Turn the Mode Dial so that Tv (Shutter Priority) is the current mode.

to, for example, 1/60 or 1/125. A value such as 1/60 indicates a shutter speed of one-sixtieth (1/60th) of a second. A value such as 1/125 indicates a faster shutter speed of one-hundred twenty-fifth (1/125th) of a second. As you can see, these values usually indicate a fraction of a second.

Notice that as you spin the command dial the value in the LCD changes to numbers such as 1/60 or 1/125, for example. A value such as 1/60, as shown below left, indicates a shutter speed of one sixtieth (1/60th) of a second. A value such as 1/125, shown below right, indicates a faster shutter speed of one-one hundredth twenty-fifth (1/125th) of a second.
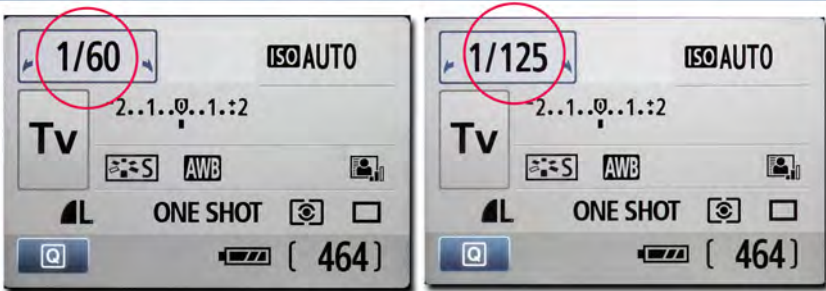
As you can see, the values you set for the shutter speed in Tv Mode usually indicate a fraction of a second.

A camera's shutter speed also changes the way action or movement in a scene is captured in a photograph. You'll want to use a fast shutter speed to freeze fast-moving subjects such as runners or racing cars. Conversely, you'll want to use a slow shutter speed to blur moving subjects to create special effects such as flowing water.

The Aperture and Shutter Speed Dance

When you set the Mode Dial to P (Program AE) mode, the T2i automatically determines the exposure for a scene. While pointing the camera at a scene, press the shutter button halfway and observe the LCD. You'll see both the aperture and shutter speed that the camera has selected for this scene. Spin the Main Dial and you'll see that both the aperture and shutter speed change on the LCD. Continue to spin the Main Dial and you'll see all of the aperture and shutter speed combinations that will produce a proper exposure. These are all equivalent exposure combinations.
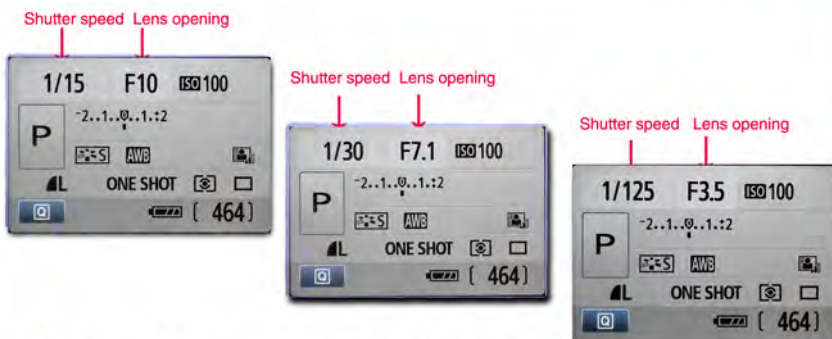
When you set your T2i to P (Programmed Auto mode), it automatically determines the exposure for the scene.

Shutter speed Lens opening

1/15   F10   ISO 100
-2..1..0..1.:2
P
[RAW-S] [AWB]
▲L   ONE SHOT   [◉] □
[Q]   [▬▬] [464]

Shutter speed Lens opening

1/30   F7.1   ISO 100
-2..1..0..1.:2
P
[RAW-S] [AWB]
▲L   ONE SHOT   [◉] □
[Q]   [▬▬] [464]

Shutter speed   Lens opening

1/125   F3.5   ISO 100
-2..1..0..1.:2
P
[RAW-S] [AWB]
▲L   ONE SHOT   [◉] □
[Q]   [▬▬] [464]

All three of these examples will produce equivalent proper exposures

The point here is that as you change the shutter speed, you'll also have to change the aperture to produce a proper exposure. Conversely, as you change the aperture, you'll have to change the shutter speed to keep in step. In P mode (Program AE), the camera does this for you simply by spinning the Main Dial.

ISO

The third way to control exposure with the T2i is by adjusting its ISO speed. We've already learned that the light reflected from a scene enters the lens, passes through the shutter and strikes the camera's sensor. When the scene

has sufficient brightness, the sensor records all of the elements of the scene in vivid detail. However, as the brightness of the scene diminishes, such as under heavy overcast skies or as night begins to fall, the sensor may have trouble capturing all the detail.

Using its sophisticated electronics, the T2i is able to increase the sensitivity of its sensor thus allowing it to record more detail when the lighting is diminished. The camera's ISO speed is a measurement of the sensor's sensitivity and ranges from 100 to 6400 — with 100 being the least sensitive and 6400 being the most sensitive.

When the Mode Dial is set to any of the Basic Zones, the T2i automatically sets the ISO speed for the scene. When the Mode Dial is set to any of the Creative Zones, you can explicitly set the ISO speed. We'll show you how to do this in the sections that follow.

When you set the Mode Dial to any of the Basic Zones, the T2i automatically sets the ISO speed for the scene. When the Mode Dial is set to any of the Creative Zones, you can explicitly set the ISO speed.

As you might expect, changing the camera's ISO speed requires a change in both the aperture and shutter speed to achieve a proper exposure. But again, the T2i automatically synchronizes the settings as you change one of these three controls (except when the Mode Dial is set to M).

In general, using a lower ISO speed produces a higher quality photograph than when using a higher ISO speed. Using higher ISO speeds, for example 800 and higher, may add speckles (granular spots) to your photographs. So if you're striving for the highest quality photos, use the lowest ISO speed that the scene allows.

Depth of Field

There's one last topic that we'll discuss here. *Depth of Field* (DOF for short) refers to the closest and farthest distance from the camera that appears in focus in the photograph. Keep in mind that DOF occurs as a gradual transition and is not a sudden change from clear to blurry.

Depth of Field (DOF) refers to the closest and farthest distance from the camera that appears in focus in the photograph. Keep in mind that DOF occurs as a gradual transition and is not a sudden change from clear to blurry.
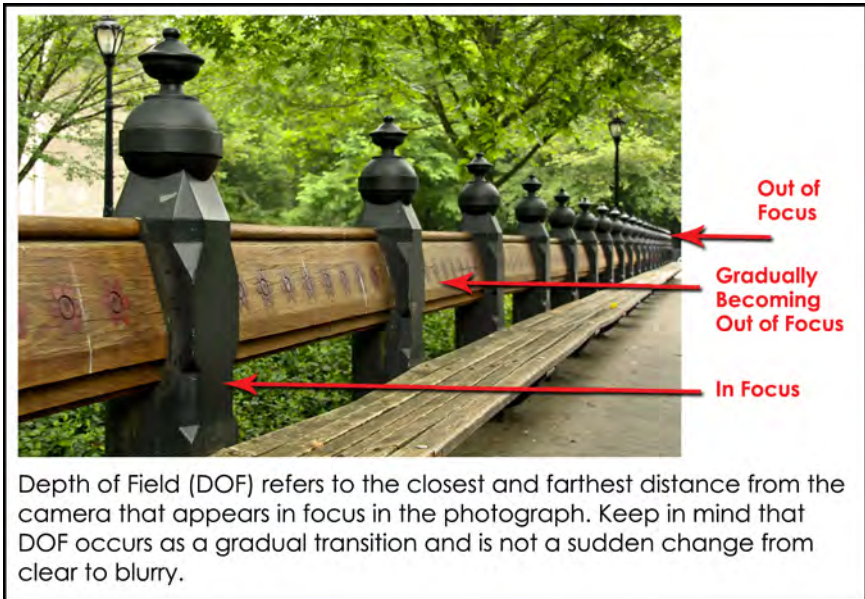
DOF is affected by both the *focal length* of the lens and its aperture setting.

First a quick note about focal length. The standard lens for the Canon T2i is the 18mm-55mm zoom lens. This lens has a focal length that can be varied from 18mm at its widest setting to 55mm at its longest setting. When at its widest setting, the DOF is greater compared to its longest setting. This means that more of the scene is in focus at its widest setting than at its longest setting. Another way to put this is that the DOF is wider at a wider focal length and the DOF is narrower at a longer focal length.
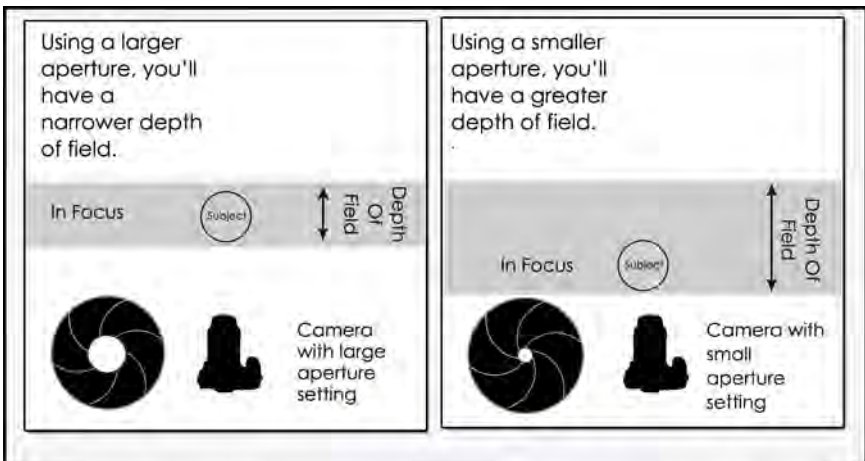
Likewise, the aperture setting of the lens affects the photograph's DOF. If you snap two photos, one captured at a large f-stop and the other captured at a small f-stop, the second will show more DOF.

f/4.5	↑	A small f/stop number, such as 4.5, means that a smaller range of distances will be in focus.
f/5.0	Smaller DOF	
f/5.6		
...		
...		
f/16		
f/25	Larger DOF	A large f/stop number, such as f/32, means that a larger range of distances will be in focus.
f/32	↓	

Using this know-how, you'll be able to better control the amount of a scene that you'd like to keep in sharp focus.

Mode Dial and Modes

The large Mode Dial on the top right of your camera is the first control that you'll want to set before you begin snapping away. As you rotate the dial, you're changing the shooting modes. These are divided into two types: the Basic Zones and the Creative Zones.

Those of you who are starting out will most likely choose to shoot using one of the Basic Zones where the T2i automatically sets most of the controls when you press the shutter button.

As you progress and learn how the controls are able to add subtle enhancements to your photos, you'll be using one of the Creative Zones more often. In fact, most of the techniques that we'll show you in the next pages will have you using one of the Creative Zone shooting modes.

Finally, for reference, we'll show you a detailed illustration of the controls and indicators that you'll be using to get those great photos from your T2i.

T2i Controls, Dials And Buttons

You'll need to be familiar with the controls and features that we talk about in the book. Sometimes, however, we might talk about a specific control and you may not know where it is on the camera.

You should already be familiar with the power switch for the camera but you should also know the location of the other controls on the top of the camera, specifically the Mode Dial and the Main Dial.

1 Built-in flash
2 Flash hot shoe
3 Shutter button
4 Main Dial
5 ISO setting button
6 Power switch

7 AF point selection button
8 AE lock (auto exposure)
9 Mode Dial
10 Auto Focus/Manual
      Focus switch
11 Flash button
12 Image Stabilization switch

The large LCD monitor should be easy to locate. You'll find the MENU and DISP (display) buttons above the LCD monitor and to the left of the viewfinder. To the right of the LCD monitor are the controls that you'll use in your everyday shooting.

1 LCD Monitor
2 Menu button
3 Display button
4 Viewfinder
5 Dioptic adjustment knob
6 Aperture Exposure Compensation button
7 Quick Control button

8 WB - White Balance
    (also up cross key)
9 AF mode (autofocus)
    (also right cross key)
10 Picture style
    (also down cross key)
11 Drive mode
    (also left cross key)
12 SET button
13 AE lock (auto exposure)
14 AF point selection button

Fixing Blurry Photos

A blurry or out of focus photo is the most common problem many photographers encounter. Fortunately, this is a problem that you can solve easily.

There are also times, however, when you want your photo to be blurry, for example, when you want to add a feeling of depth.

We'll talk about these situations in this section.

Adjusting The Viewfinder

While I'm looking through the viewfinder everything is out of focus. Even when the lens is set to autofocus, the scene appears blurry. What is the problem?

If you look through the viewfinder and the scene appears out of focus but the lens seems to be working fine, you may need to adjust the viewfinder dioptric setting. The *dioptric adjustment knob* is the small thumbwheel to the right of the viewfinder (see diagram on the following page).

Look at the AF points (autofocus points) on the viewfinder. (1)

Turn the dioptric adjustment knob (2) back and forth.

When the AF points are sharpest, your viewfinder is set for your eyesight. (3)

Canon T2i

Adjusting The Viewfinder

You can adjust the viewfinder for different eyesight corrections by turning the knob back and forth. In other words, the dioptric setting is used to adjust the viewfinder to your particular eyesight whether you use eyeglasses, contact lenses, etc.

Keep in mind that the dioptric adjustment is now set for your eyesight. Therefore, if anyone else uses your camera, they may need to readjust the dioptric setting for their eyesight.

Zooming In On An Dioptric Adjustment Lens

If you cannot bring the focus points into sharp focus, you may have to purchase the optional Dioptric Adjustment Lens E (-2). This accessory costs about $20 and is available at camera stores and the Internet.

My Main Subject Is Out Of Focus

The main subject in my photo is far away and I can see that it's blurry. For example, I took the following photo of the attractive building. However, after I see the results, the building is out of focus. What do I need to do to keep it in focus?

Mode: Full Auto   **Exposure:** 1/50
Aperture: f-4.5   **ISO:** 640

Mode: P (Programmed Auto AE)
Exposure: 1/50
Aperture: f-4.5   **ISO:** 640

Notice in this "before" photo that the building is out of focus.

The building is in perfect focus in this "after" photo.

The camera's AF point is focusing on the nearest object in the viewfinder, which in this case is the light pole. To fix this problem, you'll want to select an AF point that overlays the building instead of the light pole.

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The Main Subject Is Out Of Focus

Turn the Mode Dial to P (Program AE Zone). (1)

Press the AF point selection button (2) and to open the AF point selection screen. (3)
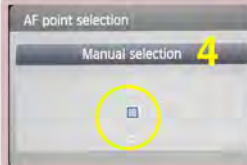
AF point selection

Automatic selection

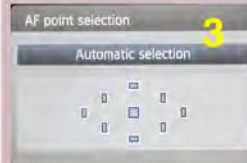**Rotate the Main Dial to choose Manual selection. (4) Make certain the center focus point is selected. (If it isn't press the cross keys to select it.)**

AF point selection

Manual selection

Compose the picture by placing the center focus point over the main subject. (4)

Press and hold the shutter button halfway. (5)

Recompose the shot.

Press the shutter button fully to capture the picture.

ISO

Tip Talk

When you set the Mode Dial to one of the Basic Zones, your camera selects one (or more) of the nine AF points automatically. If an AF point covers an object in the viewfinder, the point will flash red when you press the shutter button halfway. If more than one AF point flashes, the camera chooses the focus point for the object <u>closest</u> to the camera. The light pole in the first photo is closer to the camera than the rest of the scene. Therefore the light pole is in perfect focus but the building isn't in focus.

By switching to Program AE mode, you can select a particular AF point from the Manual AF Point selection menu. You then position the AF point over the main subject in the viewfinder to choose which of the of the multiple objects in the viewfinder is the most important; in our case, it's the large building.

Zooming In On Creative Zones & Basic Zones

The Mode Dial for your T2i is located at the top of the camera. You'll turn it to select which mode you want to use. The T2i divides its 12 modes into two types in the Creative Zone and Basic Zone.

The modes in the Creative Zone give you more control over exposure and other camera settings.

Creative Zone

Basic Zone

The primary benefit of using the Basic Zone is that you can match the T2i to the current conditions or to a subject. The modes in the Basic Zone permit the camera to predetermine a number of settings, some of which you cannot adjust.

My Closeups Are Blurry

The photos of the flowers from my garden are coming out blurry. What can I do to fix this?

Mode: P (Program AE)   **Exposure:** 1/320
Aperture: f-5.0   **ISO:** 100

Although the photo is good overall, the flower is too blurry.

Mode: Close-up   **Exposure:** 1/320
Aperture: f-5.6   **ISO:** 100
Focus: Manual Focus

By using the Close-up mode, you can get the flower in focus.

When shooting upclose, you may want to switch your autofocus lens to manual for precise focus.

Turn the Mode Dial to Close-up mode. **(1)**

Move the lever on your lens from AF to MF to set the lens to manual focus. **(2)**

Compose the scene.

Slowly and carefully focus the lens manually by turning the focusing ring back and forth **(3)** until the portion of the flower that is important to you appears sharpest in the viewfinder. **(4)**

Press the shutter button halfway to set the exposure and then fully to capture the picture. **(5)**

Canon
T2i

My Closeups Are Blurry

Tip Talk

When you're trying to take an extreme closeup, your camera may not be able to achieve perfect focus automatically. By setting the lens to MF (manual focus) you can arbitrarily choose the portion of the flower that you want to be in exact focus.

Regardless of whether you use AF (autofocus) or MF (manual focus), each lens has a minimum focus distance. As you can imagine, attempting to capture a subject closer than the minimum focus distance will result in a blurry photo.

When you're finished taking closeups be sure to set the lens back to AF (autofocus).

Adjusting Focus For Closeups

Although I used the manual focus as suggested in a previous technique, only a small portion of the flower is in focus. Is there something I can do to sharpen the picture?

Mode: Close-up   **Exposure:** 1/100
Aperture: f-4.5   **ISO:** 100
Focus: Manual

Mode: Av (Aperture Priority)   **Exposure:** 1/200
Aperture: f-8.0   **ISO:** 400
Focus: Manual
NOTE: boost ISO to use smaller aperture

Many times your closeups just don't appear to be sharp enough, in other words, only a small part of the photo is in focus.

By using a smaller aperture, you're increasing the depth of field and therefore bringing more of the subject into focus.

Turn the Mode Dial to Av (Aperture Priority). **(1)**

Turn the Main Dial to select an aperture of **F8.0**. **(2)**

Move the lever on the lens from AF to MF **(3)** to set the lens to manual focus.

Press the ▣ (Quick Control) button to open the Quick Control screen. **(4)**

Press the (⊚) right crosskey to select the ISO mode and open the ISO screen. **(5)**

Press the (⊚) right crosskey to select **400** **(6)** and press SET.

Compose the scene.

Slowly and carefully focus the lens manually by turning the focusing ring **(7)** back and forth until the portion of the flower that is important to appears sharpest. For extreme closeups, only a small portion of the flower may be in focus.

Press the shutter button **(8)** halfway to set the exposure and then fully to capture the picture.

Canon T2i

Adjusting Focus For Closeups
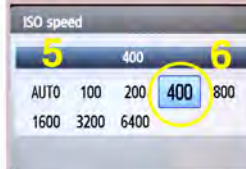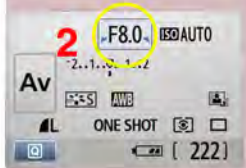
Tip Talk

By choosing a smaller aperture, you're increasing the *depth of field* of the lens. This is a term that describes how much of the subject is in focus at varying distances from the camera. By using a smaller aperture (larger f-number), more of the subject is in focus. By using a larger aperture (smaller f-number), less of the subject is in focus.

Depending on the brightness of the scene, an aperture of f-11 or f-16 would produce a photo with a larger portion of the flower in focus.

Zooming In On Aperture Mode

The best way to understand aperture priority is to shoot several photos in Av mode when you don't need to worry about taking great pictures. If you can convince some friends or family members to pose for you, position them a few feet in front of each other and take a series of photos, each at a different f-number.

You'll probably get both subjects clearly in focus in some photos but only one in focus in other photos.

Keep in mind that where you focus has a bearing on your final image. For example, focus on the foreground subject when using a small f-number, and the background subject will probably be out of focus.

Also, the farther away that you focus, the deeper the depth of field will be. So focusing on the subject in back will yield more depth of field than if you focus on the closest subject, even at the same aperture setting.

Understanding the relationship between aperture size and distance is important for photography in general but it's critical when you're shooting closeups. The closer you bring your camera to the subject, the narrower your depth of field becomes. If you're shooting something that's only a few inches away, then the depth of field can be less than an inch. This is the perfect time to switch to aperture priority and dial in the deepest depth of field possible.

Preventing Blurry Photos

Blur is most often caused by improper focus. So focusing the camera better will take you a long way to eliminating most of the situations in which your photos turn out blurry. Here are a few tips to help you capture that picture perfectly the first time.

AF Points

The key to getting your lens to produce sharp photos is to pay attention to the AF points. When an AF point flashes red over a subject, the lens is focused on that subject. If more than one AF point flashes red, the lens is focused on the closest subject.
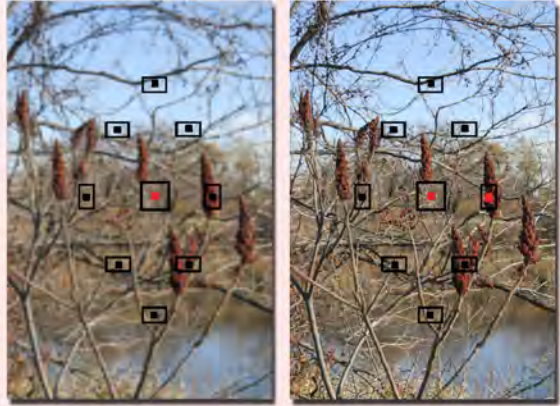
If the desired subject is not the closest, it may appear blurry in the photo. So, you may want to choose a focus point to ensure perfect focus.

When you set your T2i to one of the Basic Zones, all the AF points are active. Set the camera to one of the Creative Zones to select a single focus point. Make doubly sure that the AF point covers your subject and press the shutter button halfway to lock focus. While still depressing the shutter button, recompose the scene in the viewfinder if necessary and then press fully to capture the scene.

Quality Setting

Up to now, we haven't talked about the image recording Quality setting. While the T2i has several settings, we recommend that you always use the highest quality ◢L setting. Recording your photos in the ◢L setting produces the highest resolution image possible. This in turn produces sharper photos than lesser resolution images.

Manual Focus

While autofocus lenses perform quite well for most photos, sometimes you may want to focus manually. This is especially true for close-ups. If you hear the lens struggling and moving as it tries to focus, switch to MF (manual focus).

By focusing the lens manually, you'll often get sharp photos that are difficult to capture with autofocus. Keep in mind that each lens has a minimum focus distance. If you try to take a photo of a subject that is closer than this minimum focus distance, your results will be blurry.

Difficult Scenes

When shooting scenes with low light or low contrast, your T2i may hesitate while focusing. You'll hear the lens move back and forth several times and then just set there if it is unable to achieve proper focus.

When this happens one solution is to focus on a secondary subject that is the same distance from you as the desired subject. Lock the focus by keeping the shutter depressed halfway, recompose the scene in the viewfinder and then press fully to capture the scene.

Focus on a secondary subject the same distance from you as the desired subject when your T2i hesitates while focusing.

It's helpful to know that a blurry photo is the result of poor focus or camera shake.

Poor focus usually produces a blurry photo with some elements that are sharp and others that are out of focus. The elements tend to have soft yet smooth edges.

Example of poor focus causing the photo to be blurred.

On the other hand, camera shake usually produces a photo that is blurry throughout. The elements have a jagged or harsh look.

Example of camera shake causing the photo to be blurred.

If you conclude your photo suffers from poor focus, follow these tips:

- ❖ Set the lens for autofocus (AF on the lens)
- ❖ Consider using manual focus (MF on the lens) for closeups
- ❖ Consider using manual focus (MF on the lens) for scenes with low contrast
- ❖ Pay attention to the AF points -- the AF point covering the subject closest to you determines the focus.
- ❖ Select the center AF point as required by the scene -- using one of the Creative Modes.

If you conclude your blurry photo suffers from camera shake, follow these tips:

- ❖ Set the lens to use its Image Stabilizer, if available (Stabilizer ON | OFF on the lens)
- ❖ Plant your feet firmly on the ground -- don't stand on your toes
- ❖ Hold your T2i so that your elbows are braced against your chest
- ❖ Carefully and gently press the shutter button -- don't hammer the shutter.
- ❖ Use a tripod if shutter speed is longer than 1/30th of a second.

Some People In The Group Are Out of Focus

At a recent gathering, we wanted to take a group photo. Those closest to the camera are in focus but those farther away aren't in focus. How can I get everyone to be in focus?

Mode: Full Auto   **Exposure:** 1/60
Aperture: f-4.0   **ISO:** 400

Mode: A-DEP **Exposure:** 1/60
Aperture: f-5.6   **ISO:** 800

Sometimes when you're shooting a group, the people toward the back are out of focus.

By switching to A-DEP mode you can bring everyone into focus.

Turn the Mode Dial to A-DEP (Automatic Depth). (1)

Compose the picture by placing the AF points (the photo is intentionally lightened for this example) over the multiple subjects. (2)

Press the shutter button halfway (3) and watch the red flashing AF points. (4) These indicate the subjects that will be in focus.

Press the shutter button (5) fully to capture the picture.

Only One Person Is In Focus In My Group Photo

Canon T2i

Tip Talk

When you set your camera to A-DEP, it chooses a lens aperture setting that tries to keep several subjects in focus. If the camera is unable to keep all subjects in focus, the aperture indicator will flash in the viewfinder. In this case, you'll have to move farther away from the subjects or use a wide-angle lens.

Zooming In On The D-DEP Mode

If you're shooting a landscape and want a large depth of field, make certain to select settings in your camera that will yield deep depth of field and focus at a point that will ensure that your depth of field covers the area you want.

The A-DEP mode on your T2i camera will automatically try to calculate settings that will give the maximum depth of field for your scene. When you select A-DEP, the T2i automatically switches back to autofocus point selection and activates all autofocus points. To use A-DEP, turn the Mode Dial to A-DEP and frame your shot as you would normally. Then press the shutter halfway. The T2i then uses its autofocus mechanism to determine the closest and farthest points in your scene. It then choose a focus point and exposure settings that will render the entire image range in focus.

Keep in mind that for A-DEP to work, you should have the upper focus points on the farthest point in your scene and the lowest point to be on the closest point in your scene.

Zooming In On Clearing Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right crosskey to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up crosskey to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right crosskey only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

This will return the T2i to the original settings, for example, ISO, exposure, etc.

Action & Sports Photos

Recording action and sporting events are among the most exciting types of photos. Here are a few ways to make your photos come alive.

My Indoor Sporting Events Photos Are Blurry

My youngest is a skateboarder. To capture him in action, I've increased the ISO but the photos are still blurry and out of focus. Is there anything I can do to make the photos sharper?

Mode: Sports Mode   **Exposure:** 1/100
Aperture: f-5.0   **ISO:** 3200

In some situations boosting the ISO may not stop the action leaving a blurry photo.

Mode: Sports Mode   **Exposure:** 1/100
Aperture: f-5.0   **ISO:** 3200

When available lighting is low, you can "pan" the camera to follow the action.

Turn the Mode Dial to Sports Mode. (1)

Position yourself so you can observe the movement of the subject from either a left to right direction or from right to left direction.

Follow the movement from this position by keeping the subject centered in the viewfinder. (2) This is called *panning*.

Press and hold the shutter button (3) halfway as you slowly and steadily pan the camera.

Press the shutter button (3) completely to capture the action.

Canon
T2i

My Indoor Sporting Events Are Blurry

Tip Talk

By increasing the ISO setting and using the widest aperture, you're using a fast shutter speed to help stop the action.

In situations when the lighting is low, such as this indoor skateboard park, the shutter speed may not be fast enough to stop the action. You can by panning, however, reduce the amount of subject movement (in relation to the camera) and capture a sharper image of your subject.

Take several different shots varying the speed at which you follow the subject in the viewfinder. Keep your panning movement smooth and steady. The panning technique takes practice so don't get discouraged if your first few attempts aren't perfect.

Zooming In On Panning

The technique of panning to convey a sense of motion is one that takes practice. You'll need slow shutter speeds and steady hands.

One reason that panning requires practice is that unlike most of your other photos, panning means you're moving the T2i instead of holding it still.

Note the subject in this diagram is moving from left to right but could be moving in the other direction or up or down. What is important is that you can follow the movement evenly throughout the time it takes to capture the photo. How fast and how close the moving subject is will determine the shutter speed to use.

Apparent background motion

Subject Motion

Panning Motion

Use a slower shutter speed if you want to emphasize the sense of movement but keep in mind that this will make it more difficult to keep your camera steady.

Plant your feet, draw your arms into your body, hold your camera securely and rotate the top half of your body as you track your subject. Pan as fast as the subject moves so you keep it in the same position in your viewfinder. Press the shutter down as you continue your motion and follow through even after the shutter has closed. Use continuous shooting mode if you have time for more exposures.

Capturing Peak Action

My sons are baseball players and I'm using my camera to take photos of their ballgames. My photos, however, lack the excitement that should accompany the action. What can I do to capture the peak action?

Mode: Auto   **Exposure:** 1/250
Aperture: f-6.3   **ISO:** 3200

Mode: Av (Aperture Priority)
Exposure: 1/100   **Aperture:** f-6.3
ISO: 3200   **Drive Mode:** Continuous

Here's a single stop action of the batter.

When you set the Drive Mode to Continuous, you can record a series of action photos.

Turn the Mode Dial to Av (Aperture priority). **(1)**

Press the ▣ (Quick Control) button to open the Quick Control screen. **(2)**

Press the ⊚ right crosskey to select ISO **(3)** and press SET to open the ISO settings screen. **(4)**

Press the ⊚ right crosskey to select a high ISO setting such as 3200. **(4)** Press the SET button.

Press the ⊚ right crosskey to select AF. Press SET to open the AF mode screen. **(5)**

Press the ⊚ right crosskey to select AI SERVO. **(6)** Press the SET buton.

Press the ⊚ crosskey to select Drive and press SET to open the Drive mode settings screen. **(7)**

Press the ⊚ right crosskey to select Continuous shooting. **(8)**

Rotate the Main Dial left until the aperture is at the widest setting. (You're also setting the fastest shutter speed).

Compose your scene and press/hold the shutter button to capture your action shots (up to 50 continuous images).

Canon T2i

Capturing The Peak Action
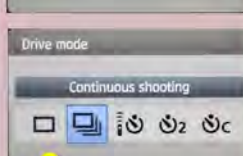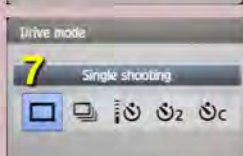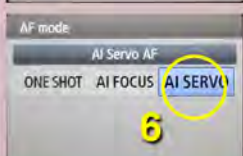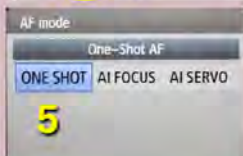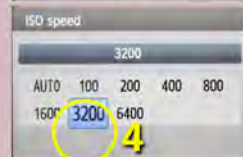
Tip Talk

The usual way of capturing subjects in action is to use Sports mode. The Sports mode, however, limits the ISO setting to 800, which, in turn, limits the shutter speed and causes the subject blur. In low light situations, such as this indoor skating rink, however, you'll want to increase the ISO setting to insure a proper exposure with minimum subject movement.

By changing to Aperture priority mode (Av), you can first boost the ISO to 1600 and choose a wider aperture plus faster shutter speed to stop the action. The camera's Continuous shooting mode lets you take a series of action photos when you hold down the shutter button.

This lets you choose from a group of action photos to select a "peak" capture.

Clear Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right cross key to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up cross key to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right cross key only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

This will return the T2i to the original settings, for example, ISO, exposure, etc.
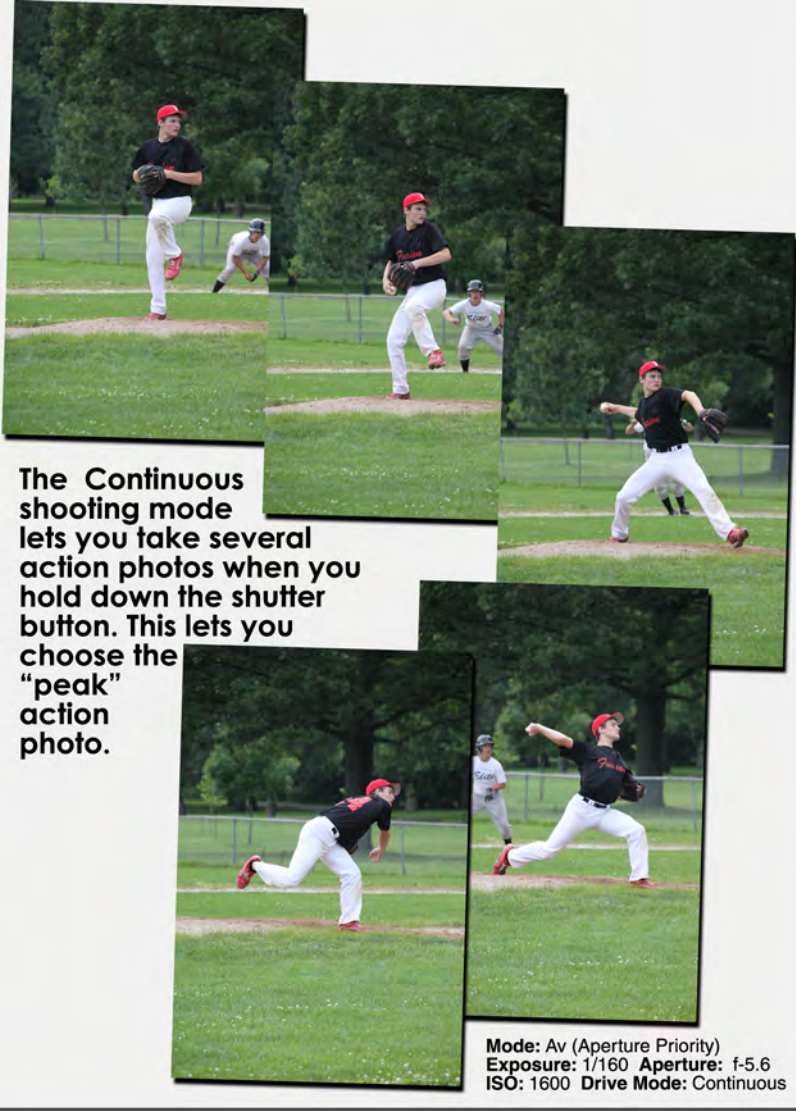
The Continuous shooting mode lets you take several action photos when you hold down the shutter button. This lets you choose the "peak" action photo.

Mode: Av (Aperture Priority)
Exposure: 1/160   **Aperture:** f-5.6
ISO: 1600   **Drive Mode:** Continuous

Zooming In On ISO

The ISO number indicates how sensitive the image sensor in your T2i is to the amount of available light. A higher ISO number means the image sensor is more sensitive to light. This means that you can take photos in low-light situations.

One common example is when you're in conditions where there isn't enough light to correctly expose a scene. Although you might be able to use the built-in flash, you can manually set a higher ISO to 800 or even 3200, for example. Also, if you've set a shutter speed so slow (1/60 sec. and slower) that it's difficult to hold the T2i steady, then try the next higher ISO that will then allow you to select a faster shutter speed.

You should keep these general rules in mind about the ISO setting:

❖ When you're shooting in conditions where there is enough light for a correct exposure, such as on a sunny day, set a low ISO such as 100.

❖ If you want to take photos indoors in low-light conditions, you'd need to improve the conditions by using the flash or setting a higher ISO.

❖ You can prevent camera shake and blurry photos by using a higher ISO.

❖ The problem of noise with high ISO settings, which was a major concern for photographers before, isn't as much of problem now. Therefore, don't be afraid to set a higher ISO number in situations that require it.

Tips On Shooting At Sporting Events

Problem With Lights Inside Gyms

The mercury or sodium vapor lights used in many high school gyms occasionally flicker or change in both intensity and color. Although you may not notice it because it happens so fast, your camera may notice it and therefore you'll see it on the resulting photo. The best way, and perhaps the only way, to avoid this problem is to use the built-in flash on your camera. Check to make certain that flash photography is allowed at the event.

Practice

Snap as many photos as you can at your children's sporting events to increase the chance of getting great photos that you can proudly show to family and friends. It also gives you more experience in getting the proper camera settings for future sporting events. It's not always possible to capture every single moment at a sports event but snapping as many photos as you can increases the chances of getting better photos.

Don't Forget The Action Behind The Scenes

Not all the activity occurs on the field, court or ice so considertaking photos of the fans as well. These types of photos can help tell the story the game or event.

Get Photos Of The Scoreboard

Don't overlook the scoreboard. It's a great way to record game information you may later need to help tell a story with your photos.

Set Your Camera For Continuous Mode

Because it's impossible to time every shot perfectly, use continuous mode so you can take several photos in quick succession. (See page 41 for more information.)

Capture The Action By Panning

Panning is one technique you should practice for photographing sporting events. By becoming experienced in panning, you'll produce a photo with a nice effect of seeing your athlete in focus yet have the background slightly blurred. (See page 39 for more information.)

Anticipate The Action

One way to snap your best photo is by anticipating the action. Always be ready for opportunities such as the action near a goal in a hockey or soccer game or your son waiting for the pitch in baseball game.

Expect The Unexpected

The most interesting sports photo opportunities are not always found on the field so look around for photo opportunities in unexpected places, such as the bleachers, pressbox, refreshment stands, etc.

Use breaks in the action

Use timeouts and other breaks in the action to check your camera settings, battery power, memory, etc.

Fixing Color In Your Photos

You can take what you think (hope) is a great photo only to realize that it's too blue or too yellow. These are examples of problems with color that you may have noticed before but tried to fix on your computer using software.

However, it's better to avoid these problems in the camera instead of using software.

You also may be trying to take that sunset or sunrise photo but never quite got the shades of color just right.

We'll talk about various color problems and solutions in this section.

Fixing Orange/Red-tinted Photos

When I'm taking photos indoors without the flash, the faces look reddish or orangish. How can I fix this?

Mode: Flash off **Exposure:** 1/40
Aperture: f-5.0   **ISO:** 3200

Notice the reddish tint in this photo. This type of problem is usually due to an incorrect white balance setting on the camera.
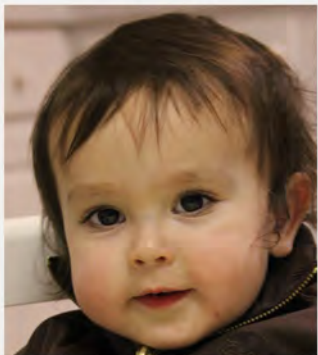
Mode: Flash off   **Exposure:** 1/50
Aperture: f-5.0   **ISO:** 3200
White Balance: Set to Fluorescent light

Notice that the color is more pleasing after the white balance is adjusted.

To fix red faces, we'll change the white balance setting of the camera.

Turn the Mode Dial to P (Program AE Zone). (1)

Press the ▣ (Quick Control) button to open the Quick Control screen. (2)

Press the 🔘 right crosskey to select ISO (3) and to open the ISO settings screen. (4)

Press the 🔘 right crosskey to select AUTO (4) and press the SET button.

Press the 🔘 crosskey to select WB (5) and open the White Balance settings screen. (4)

Press the 🔘 right crosskey to select White fluorescent light (6) and press the SET button.

Compose your scene with the main subject in the center of the viewfinder and press the shutter button fully to capture the picture. (7)

Tip Talk

The indoor lighting in most of our homes comes from tungsten light bulbs, also called incandescent bulbs. The problem with these types of light bulbs is that they tend to turn skin color, or flesh tones, orangish or reddish in photos. You can compensate for the orangish or reddish flesh tones by selecting one of the Creative Zones and then selecting the appropriate white balance (WB) setting.

Keep in mind that you must be in one of the Creative Zones to set the WB; when you set your camera to one of the Basic Zones, you cannot select any of the WB settings.

Fixing Blue-tinted Photos

Some of my outdoor photos appear bluish. Why?

Mode: Full Auto Exposure: 1/50
Aperture: f-4.5 ISO: 100
White Balance: Shade

Mode: P (Programmed AE)
Exposure: 1/40 Aperture: f-4.5
ISO: 100 White Balance: Shade

Notice the bluish tint in this photo, which was captured in the open shade.

The color here is more pleasing after the white balance is adjusted.

To remove the blue tint, we'll again adjust the *white balance* of the camera.

Turn the Mode Dial to P (Program AE Zone). (1)

1

Press the ▣ (Quick Control) button to open the Quick Control screen. (2)

2

Press the ⊕ right crosskey to select AWB (3) and to open the White balance screen. (4)

3

4

Press the right ⊕ crosskey to select Shade (4) from the choices and press the SET button. (5)

5

Compose your scene with the main subject in the center of the viewfinder (6) and press the shutter button fully to capture the picture.

6

Fixing Blue-tinted Photos

Canon **T2i**
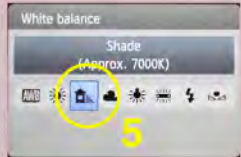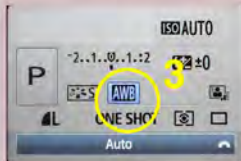
By adjusting the camera's white balance to match the scene, the camera has captured the photo with a slightly warmer tint.

Tip Talk

Photos that you take in the open shade may suffer from a lack of reddish light. Keep in mind that you cannot select any of the WB (White Balance) settings when you have your camera in any of the Basic Zones. If you, however, select one of the Creative Zones, you can manually set the white balance to compensate for the bluish flesh tones.

More About White Balance

As its name suggests, white balance removes or adjusts the overall color of an image so objects that appear white in your scene also appear white in your photos. To do this, your camera depends on the "color temperature" of the light source and refers to the relative warmth or coolness of white light.

Keep in mind that most light sources are not 100% white but have a specific "color temperature." A low color temperature shifts light towards red while a high color temperature shifts light towards blue. Different light sources emit light at different color temperatures, which produces the color cast.

Different light sources emit light at different color temperatures producing the color cast. The unit of measurement for light temperature is Kelvin, named for its inventor, Lord Kelvin. The following table shows approximate temperatures of light sources that might affect your photography:

Type of Light	Color Temperature in degrees K
Candle Flame	1000-2000
Incandescent (Tungsten)	2500-3500
Sunrise / Sunset (clear skies)	3000-4000
Fluorescent Lamps	4000-5500
Electronic Flash	5000-5500
Bright overhead sun, clear sky	5000-6500
Cloudy Sky / Shade	6500-8000
Blue Sky	9,000
Overcast / Heavy cloud cover	9000-10,000

Why is it so important to understand white balance? An incorrect white balance (WB) setting can create blue, orange or even green color casts that can turn an otherwise good photo into a disappointing photo.

When you press the shutter button, your camera considers the overall color of the scene and calculates what it determines to be the automatic white balance (AWB). However, your camera can be tricked, especially if one color, say green, dominates the scene or if there is no natural white present in the scene.

In other words, your T2i needs to find a reference point that represents white. It then calculates all the other colors based on this white point. For example, if you photograph a halogen light shining on a white wall, the wall in the photo will have a yellow cast although the wall to you appears white. If, however, the T2i knows the wall is supposed to be white, it will then compensate all the other colors in the scene accordingly.

An incorrect white balance setting can create different color casts that can turn a photo into a disappointing photo.
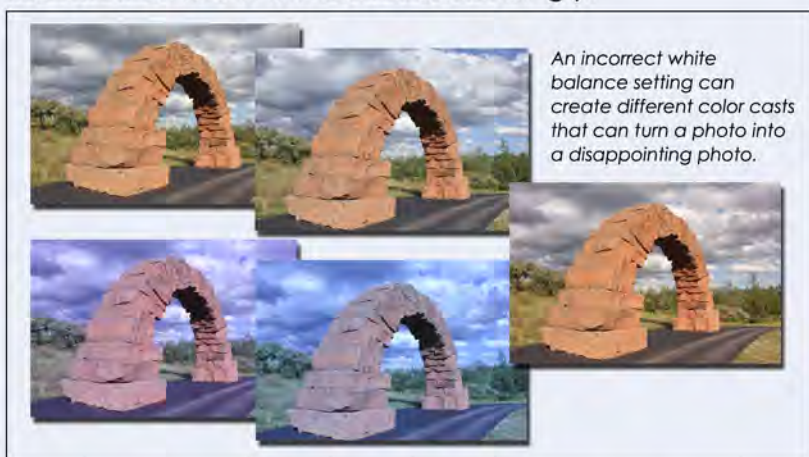
The trick is to tell your camera how to do this. Fortunately, this is why you may need to use one of the preset white balances on your camera.

Also, as you become more familiar with white balance, you can create your own white balance setting.

When you understand white balance, you'll avoid or overcome color casts that your camera may create. You'll also become a better photographer because you'll be improving your skills under a greater range of lighting conditions.

Capturing Colorful Sunsets

I'm starting to take sunset photos but too often they're not as "rich" as I would like. Can you suggest how I can take better sunset photos?

Mode: Full Auto   **Exposure:** 1/250
Aperture: f-6.3   **ISO:** 100

Mode: P (Programmed Auto) **Exposure:** 1/640
Aperture: f-10   **ISO:** 100
Exposure Compensation: -2

Although this photo is picturesque, some people may prefer a photo that is "richer."

This photo was taken a few seconds later and exhibits much richer colors.
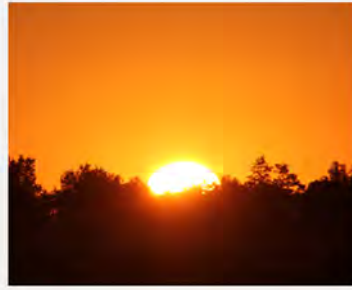
One way to add richer, saturated colors to your sunset photos is to adjust the *exposure compensation*.

Turn the Mode Dial to P (Program AE). (1)

Press the ◙ **(Quick Control) button to open the Quick Control screen. (2)**

Press the ◉ **right crosskey to select Metering mode (3) and press SET.**

Press the ◉ **right crosskey to select Evaluative metering and press SET. (4)**

Press the ◉ **right crosskey to select Exposure Compensation (5) and press SET.**

Press the ◉ **left crosskey to select -2 for the exposure compensation. (6) Press SET.**

Compose your scene with the main subject in the center of the viewfinder and press the Shutter button halfway.

Press the Shutter button fully to capture the sunset.
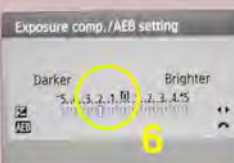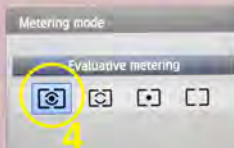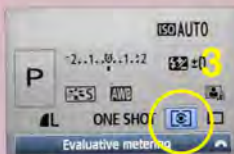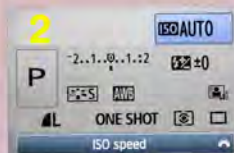
Tip Talk

There is no right way or wrong way to capture sunsets because judging the results is very subjective. Because these photos are subjective, you may want to take several shots with some exposed evenly, some one stop underexposed and some two stops underexposed. Then compare the three results on your LCD monitor and see which you like the best.

Good sunset photos are often the result of careful planning. Look for places that might be good for sunsets before your photo shoot. Instead of a sunset over open water, consider adding foreground elements and silhouettes such as sailboats, trees, lighthouses, etc.

Also consider the weather. Instead of waiting for a perfectly clear day for a sunset photo, you may find the most dramatic photos are on days when clouds appear above the horizon.

Eliminating Sunspots

Why am I getting annoying sunspots on my photos?

Mode: Full Auto **Exposure:** 1/60
Aperture: f-4.5 **ISO:** 100
Lens hood: Not used

Mode: Full Auto **Exposure:** 1/60
Aperture: f-4.5 **ISO:** 100
Lens Hood: Used

You may **notice** that your outdoor photos have sunspots or streaks through the center. Although sunspots may add a nice effect to some photos, they're often distracting and annoying.

Here's the same subject without the annoying sunspot.

See page 63 for tips and suggestions on how to avoid sunspots.

Tip Talk

Although most photographers consider sunspots as a problem to avoid, other photographers believe the sunspots can add a dramatic effect to their photos.

You may want to consider experimenting with sunspots to see if you can use them to add dramatic effects to your photos as well.

Examples Of Using Sunspots Creatively

Some photographers believe sunspots can add a dramatic effect to their photos, such as in these two examples, The photo on the left is of a bright stainless steel sculpture that easily reflects the sunlight. So, instead of trying to shoot around the reflections, we decided to incorporate the sunpots into the photo.

Mode: Programmed Auto **Exposure:** 1/250 **Aperture:** f-8 **ISO:** 100 **Exposure Compensation:** -0.7
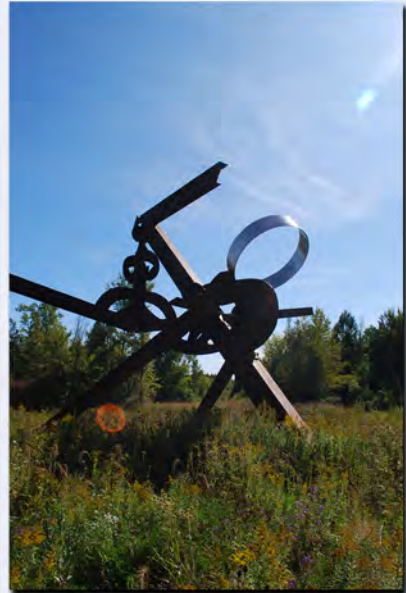
Mode: Programmed Auto **Exposure:** 1/320 **Aperture:** f-9 **ISO:** 100 **Exposure Compensation:** 0

It's a similar situation with the photo on the right. The round sunspots add to the shape and form of the sculpture.

This is, of course, subjective so you should experiment to see what is to your liking.

Zooming In On How To Eliminate Sunspots

This technique is not a camera setting technique , but instead explains how to a rrange your T2i to minimize the chances of sunspots. The sunspots are the result of direct or reflected rays of sunlight reaching the front surface of your lens.

Use A Lens Hood

A lens hood fits over the front of your lens and blocks rays of sunlight from striking the surface of your lens. If you don't already have a lens hood, you can purchase one for your camera at a nominal cost.

Shield The Lens

Shield the front of the lens with your hand or a hat. When shooting towards the sun, you can often use your hand or an object such as a hat to block the direct rays of the sun from striking the front lens surface.

Polarizing Filter

A polarizing filter screws into the front threads of your lens and allows the rays of light to pass through to the lens in an orderly manner. In doing so, it darkens the sky to produce a more dramatic effect to any captured photos.

Taking Black & White Photos

How can I easily capture photos in black and white?

Mode: Full Auto   **Exposure:** 1/200
Aperture: f-10   **ISO:** 100
Picture Style: Standard

Mode: P (Program AE)   **Exposure:** 1/160
Aperture: f-8   **ISO:** 100
Picture Style: Monochrome

Here's a photo of a large statue in color.

By changing your T2i to record monochrome, you can make the photo more dramatic.

If you like black and white photography, you can set your Canon T2i to take great black-and-white photos automatically.

Turn the Mode Dial to P (Program AE). (1)

Press the **(Quick Control) button to open the Quick Control screen. (2)**

Press the right crosskey to select **Standard mode (3) and press SET to open the Picture Style window. (4)**

Press the right crosskey to select **Monochrome (5) and press SET.**

Press the Shutter button (6) halfway to continue.

Compose your photo and press the shutter button. (6)

NOTE: You can change the settings as needed just as you would with a color photograph. In other words, if the resulting photo is too dark, please read the section on fixing dark photos.

Make certain to cancel the Monochrome setting when you're finished (see page 35 for more information).
.
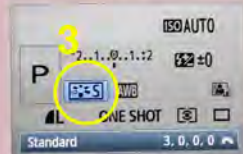
Tips On Shooting In Black And White

Why shoot black and white photography when every one is so used to seeing a bright colorful photo. It's easy for most photographers to consider black-and-white photography as "old" in this digital age. It is, however, because of your digital camera that you can easily rediscover the beauty of black-and-white photography.

Subject

Choose your subject carefully because some subjects that look interesting in color look dull in black-and-white (but the opposite is also true). Photographs of people look especially good in black-and-white but buildings, landscapes and other scenes are also valuable subjects in black-and-white photography.

Perspective

Perspective in any photograph can help tell a story and bring new interest to an otherwise over-photographed subject. Try shooting from an unusual angle, for example, if you're photographing a building, stand at the bottom and aim your camera up to snap the photo.

Background

Make certain any background elements don't interfere with your subject. If so, take the photo from a different angle or move your subject a few feet to the right or left.

The photograph on the right is an example. The small jet in the back is taking away from the nostalgia of the older aircraft in the foreground.
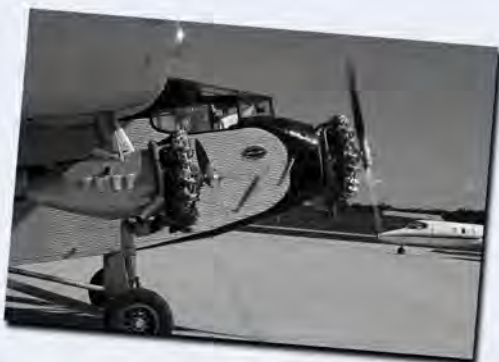
Light and shadow

Using available light and shadows properly can turn a good black and white photograph into a more dramatic photo. You may need to visit the same scene at different times during the day to snap photos as the light and shadows change.

Colors

Although you might not think so, you must consider color carefully in black and white photography. Some colors and color combinations that are eye-catching in a color photo can get washed out in a black-and-white photograph. Although red and green look very different in a color photograph, they're almost impossible to tell apart in a black-and-white photograph.

Shapes

Black-and-white photography depends greatly on shapes and lines to provide interest to anyone looking at your photos. A black-and-white photograph that shows slanting lines, crooked lines or curves usually looks more interesting in black-and-white than photographs of straight lines.

Texture

Textures, as with shapes, are very important in black-and-white photography. The surface of a straw hat, for example, has more visual impact than the surface of a baseball cap. People in black and white photographs usually look better if they're dressed simply and in solid colors.

Fixing Photos That Are Too Dark

Sometimes either your photo or part of your photo can be too dark either from shade, lighting problems or flash problems. In this section we'll talk about how you can solve the problems of dark photos.

Faces Are Dark Due To Backlighting

The pool and water in the background look great in my pool photo but the face is a little dark. How can I lighten her face yet keep the background looking great?

Mode: Full Auto   **Exposure:** 1/320
Aperture: f-10   **ISO:** 100
Metering: Default metering evaluative

Mode: P (Programmed Auto AE)
Exposure: 1/250   **Aperture:** f-8.0
ISO: 200   **Metering:** Spot Meter (on face)

The girl's face here in this photo looks great but is a little dark.

By switching the metering mode to Spot metering, we've lightened our subject's faces.

To lighten the subject's face, you can change the metering mode to take the light falling on the subject's face into greater consideration.

Turn the Mode Dial to P (Program AE Zone). (1)

Press the ▣ (Quick Control) button to open the Quick Control screen. (2)

Press the ⊚ right crosskey to select Metering (3) and press SET.

Press the ⊚ right crosskey to select Spot Metering (4) and press SET.

Compose the picture by placing the central part of the viewfinder over the subject's face.

Press the shutter button halfway.

If the subject's face is not directly in the central part of the viewfinder, press the AE Lock button (6) to lock the exposure and then recompose the picture.

Press the shutter button fully to capture the picture.

Note the AE Lock works only for the photo you're currently taking.
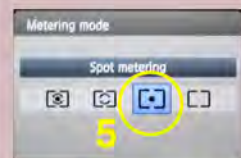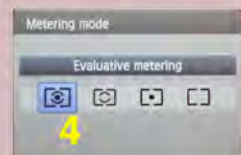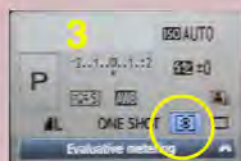
Tip Talk

In this scene, the sun is lighting the background evenly but the faces are in the "shade" and, therefore, appear too dark. When the main light source (in this case, the sun) is shining from a position predominantly from the back of the main subject, we call this *backlighting*.

Your T2i normally assumes the scene is evenly lit and determines the standard exposure using *evaluative metering*. In this backlit scene, the lighting is uneven; the sun is bright but the faces are heavily shadowed. When you select *Spot metering*, the T2i determines the standard exposure by using a very small area of the viewfinder thereby lightening the faces.

Zooming In On The T2i Metering Modes

Metering is the brains behind how your camera determines the shutter speed and aperture, based on lighting conditions and ISO speed. Metering options for your T2i include Evaluative, Partial, Spot and Center-weighted average.

Partial metering and Spot metering give you more control over the exposure than Center weighted average. They're useful when there is a small object within your scene that you either need to be perfectly exposed or know that it will provide the closest match to middle gray.

You may also want to use Spot metering or Partial metering when you're attempting creative exposures or in unusual ambient lighting conditions.

One of the most common applications of partial metering is when the subject is backlit (as in this "challenge"). By metering off of the subject, you can avoid having the subject look like an under-exposed silhouette against the bright background.

Spot metering works similarly to Partial metering but is used less often because its metering area is very small and therefore quite specific. Center-weighted average metering was until recently the most popular setting because it handled both a bright sky above a darker landscape below. However, the flexibility of partial and spot metering have replaced center weighted metering for many photographers. Nevertheless, some photographers prefer to use it as the default metering mode.

Photo Is Dark Due To Backlighting

Why is the subject in my photos dark even though the background is well-lit?

Mode: Full Auto **Exposure:** 1/200
Aperture: f-10.0 **ISO:** 100

Light that comes from the back often makes the subject appear dark

Mode: P (Programmed AE) **Exposure:** 1/100
Aperture: f-7.1 **ISO:** 100
Exposure Compensation: +2

By applying additional exposure, we've lightened the subject's face.

To fix the photo, we'll use a different technique called *exposure compensation* to lighten the subject's face.

Turn the Mode Dial to P (Program AE). (1)

Press the ▣ (Quick Control) button to open the Quick Control screen. (2)

Press the right crosskey to select Exposure compensation (3) and press SET to open the Exposure compensation window. (4)

Press the right crosskey until the exposure level indicator is set for two additional stops of exposure ("positive stops"). (5)

Compose the picture by placing the central part of the viewfinder over the subject's face.

Press the shutter button halfway.

If the subject's face is not directly in the central part of the viewfinder, press the AE Lock button (6) to lock the exposure and then recompose.

Press the shutter button fully to capture the picture.

Photo Is Dark Due To Backlighting

Canon T2i
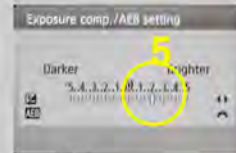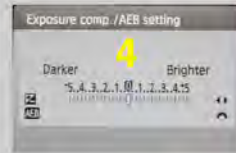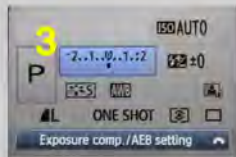
Tip Talk

As in the first example, this scene has backlighting where the main light source is shining from a position behind the main subject.

When you set one of the Basic Zones, the backlighting "fools" the exposure metering of your camera producing the dark face. To adjust the exposure, set the camera to one of these Creative Zones.

By turning the Main Dial to the right, you're adding more exposure (called *exposure compensation*), thereby lightening the dark face.

If neither solution corrects the dark face individually, combine the two solutions by changing the Partial metering and using exposure compensation.

Photo Is Too Dark Due To Shade

Here's an example of a brightly lit scene but a nearby tree is partially shading the girl's face.

Mode: P (Programmed AE)
Exposure: 1/250 **Aperture:** f-6.3
ISO: 500
Builtin Flash: Not fired

Mode: P (Programmed AE)
Exposure: 1/160 **Aperture:** f-6.3
ISO: 400
Built-in Flash: Fired

Here's another example where the background in the scene is brightly lit but a nearby tree is partially shading the girl's face.

Although fill flash increases the amount of light falling on the subject's face, the range of the flash is limited. You can, however, increase the ISO to extend its range.

Turn the Mode Dial to P (Program AE Zone). (1)

Press the Flash button (2) to pop the flash (3). You'll find the Flash button on the left side of the camera near the lens opening.

Press the shutter button (4) halfway to verify that the flash icon is ready. (The flash icon looks like a lightning bolt pointing downward and you may see it for a only a brief moment.)

Press the shutter button fully to capture the picture.

Canon T2i

Fixing Blue-tinted Photos

Tip Talk

To fix this photo, you can lighten the subject's face by using the built-in flash.

If the camera is more than fifteen feet from the subject, you can extend the range of the flash by boosting the ISO setting.

Photo Is Too Dark Due To Backlighting

I have framed and focused everything properly but the subject in my photos is still dark. Do you have any suggestions as to how I can fix this?

Mode: Full Auto **Exposure:** 1/60
Aperture: f-5.0 **ISO:** 100

Although the subject is framed and focused properly, backlighting is making her much too dark in this photo.

Mode: Full Auto **Exposure:** 1/100
Aperture: f-6.3 **ISO:** 100

However by moving or rearranging the subject, you can also change the lighting conditions and overcome the problem of backlighting.

The problem with this photo is that it has very strong backlighting. This makes the young girl's face dark. To lighten the face, we'll change the way in which we arrange the subject in the scene.

This technique isn't a camera setting technique, but instead explains how to arrange the subject to take advantage of the source of main light.

Ask the subject to move to a position so that the light is falling on his/her face.

As the picture-taker, move so that the light is coming from behind you – often called "over the shoulder." **(1)**

Turn the Mode Dial to the Full Auto Zone. **(2)**

Press the Shutter Button fully to capture the picture. **(3)**

Canon T2i

Photo Is Too Dark Due To Backlighting

Tip Talk

You may be wondering how you can move the subject and still include the original background?

Don't worry because you won't need to be magician. You might think that his technique isn't very useful in this situation, but by moving to a slightly different angle, you can do wonders for lighting faces and including the scenic background. A few steps in one direction or another and some swiveling can yield dramatically improved photos.

Zooming In On Clearing Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right crosskey to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up crosskey to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right crosskey only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

This will return the T2i to the original settings, for example, ISO, exposure, etc.

Using A Reflector To Fix Dark Photos

The subjects in my photos are only slightly darker than I would like. Is there a way to fix this problem?

Mode: Portrait Exposure: 1/40
Aperture: f-5.0 ISO: 3200
Reflector: Not used

The face of the subject in this photo is slightly dark although the rest of the scene is fine.

Mode: Portrait Exposure: 1/50
Aperture: f-5.0 ISO: 3200
Reflector: Used

We used a reflector here to redirect the light to the areas of the face that the shadows hide or darken. You can use a handerchef or a pillowcase to make a "homemade" reflector.

In this type of situation when you want to lighten the faces and soften the shadows as well, we'll add light using a *portable reflector*.

A portable reflector is one of the best items to use in these situations. You can find a portable reflector at most photo and camera shops but you can improvise a reflector from a white sheet or pillowcase.

This technique is not a camera setting technique, but instead explains how you can selectively add light to the subject's face without affecting the remainder of the scene.

Ask an assistant to hold a portable reflector (available from most photo and camera shops). If you don't have a reflector available, use a white sheet or pillowcase opposite the subject's face. You'll want the white surface to reflect the sunlight so as to lighten the shadows on the face. (1)

Turn the Mode Dial to the Full Auto Zone. (2)

Press the shutter button fully the capture the photo. (3)

Canon T2i

Using A Reflector To Fix Dark Photos

Tip Talk

In this example, we used a portable reflector available from most photo and camera shops. You want to position the reflector so it redirects the sunlight to the areas of the face that are hidden or darkened by the shadows.

This reflector has a flexible wire frame that opens to a diameter of about three feet and includes several colors of reflective material, for example, white, silver and gold that add a tint to the reflective light. The unit collapses to a small size — about ten inches — for easy storage.

You can also improvise a reflector from a white sheet or pillowcase.

Part Of The Photo Is Too Dark

I'm using the tree in the foreground in this picture to help frame my photo. The main subject is perfectly exposed but the tree is a bit dark. How can I fix this?

Mode: Full Auto **Exposure:** 1/250
Aperture: f-8.0 **ISO:** 100
Flash: Not Fired

Mode: P (Programmed Auto AE)
Exposure: 1/250 **Aperture:** f-8 **ISO:** 100
Flash: Fired

The tree is used to help frame the scene. However, it's dark compared to the main subject.

By using the built-in flash, you can add more light to the tree trunk and leaves making for an evenly exposed scene.

To lighten the tree in this photo, use the built-in flash.

Turn the Mode Dial to P (Program AE). (1)

Press the flash button (2) to pop the flash (3). You'll find the flash button on the left side of the camera near the lens opening.

Compose the picture by placing the central part of the viewfinder over the main subject (building in this example). (4)

Press the shutter button (5) halfway to verify that the flash icon is ready.

Recompose if necessary.

Press the shutter button fully to capture the picture. (5)

Part Of The Photo Is Too Dark

Canon T2i

Tip Talk

Fill flash is used most of the time to add more light to faces in a scene. But you'll find many other uses for the flash when you want to even out the lighting of a scene.

Zooming In On Fill Flash

Although you'll most likely use fill flash to brighten dark areas when you're taking photos outdoors on sunny days, don't forget that you can use the technique whenever the background is much brighter than the subject.

Also keep in mind that, depending on your distance from the subject, you might not need the full power of the flash. If you're too close to your subject, the flash may overexpose your subject. To avoid this problem, set the Flash Exposure Compensation level and choose from different flash levels, such as 1/3, 1/2, or 1/8 power. Try setting the flash to 1/2 power and see if the natural light and the light from the flash are in balance.

Indoor Flashless Photo Is Too Dark

Sometimes I'm at places that prohibits using my flash indoors or I'm afraid that the flash will reflect in a window and ruin the photo. Can I take an indoor photo without using the flash?

Mode: Full Auto **Exposure:** 1/5
Aperture: f-5.6   **ISO:** 100

Mode: Program AE **Exposure:** 1/200
Aperture: f-5.6   **ISO:** 400
Exposure compensation +1

When flash photography is prohibited, your photo may be too dark.

Adjust the ISO and exposure compensation to capture a brighter photo.

Turn the Mode Dial to P (Program AE). (1)

Press the ☰ (Quick Control) button to open the Quick Control screen. (2)

Press the ⊚ crosskey to select ISO (2) and press SET to open the ISO speed screen. (3)

Press the ⊚ right crosskey to select a higher ISO setting such as 400. (4)

Press the ⊚ crosskey to select Exposure Compensation (5) and press SET. (4)

Press the ⊚ right crosskey to select +1 for the exposure compensation. (6) Press the SET button to continue.

Compose the picture by placing the central part of the viewfinder over the subject.

Press the shutter button halfway.

Verify that the scene is to your liking and press the Shutter button fully to capture the photo.
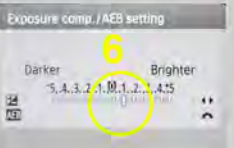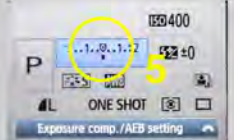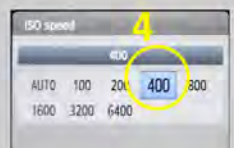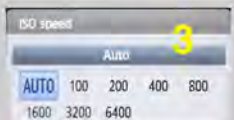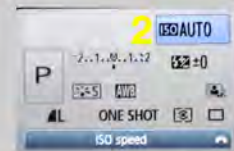
Canon T2i

Indoor Flashless Photo Is Too Dark

Tip Talk

You may find occasions where you're allowed to snap photos but you cannot use the flash. You can still capture good photos even without the flash by adjusting the ISO and the exposure compensation. You may also need to change the white balance setting (see the "Fixing The Color In Photos" section for more information on adjusting the white balance).

Fixing Photos That Are Too Light

Your photo, or part of your photo, can sometimes be too light. This problem is usually the result of lighting problems, such as too much sunlight or other light, or other exposure problems.

We'll talk in this section about how you can solve the challenge of light photos.

Auto Exposure Bracketing

I'm confused by the exposure compensation settings on my T2i; I just cannot seem to get it right. Is there an easier way to set the exposure?

Mode: Auto **Exposure:** 1/60
Aperture: f-5.0 **ISO:** 400

Sometimes your photos can be underexposed or overexposed regardless of how you've changed the settings on your T2i.

Mode: Tv (Shutter Priority)
Exposure: 1/100 **Aperture:** f-5.6
ISO: 2000

One way to eliminate the exposure "guesswork" is to use Auto Exposure Bracketing.

Your Canon T2i has a feature called Automatic Exposure Bracketing (AEB) in these types of situations.

When you select AEB, you're actually taking three photos at different exposures without having to manually change any settings between frames.

Turn the Mode Dial to P (Programmed Auto). (1)

Press the ▣ (Quick Control) button to open the Quick Control screen. (2)

Press the ⊙ crosskey to select the Drive mode (3) and open the Drive mode settings screen. (4)

Press the ⊙ right crosskey to select Continuous (4) and press SET. (5)

Press the menu button.

Press the right crosskey to select the second tab. Make certain that AEB (5) is shown at the top of the list. Press the SET button.

Press right or left crosskey to select desired amount of exposure compensation. (6) Press the SET button.

Compose the photo in the viewfinder. Press the shutter button halfway.

Press the Shutter button fully to capture the three shots.

You now have three photos taken using different exposures. Preview the three photos in the LCD Monitor and decide which is more to your liking.
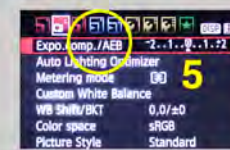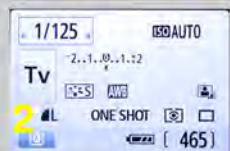
Canon
T2i

Auto Exposure Bracketing

Tip Talk

When you select AEB, the T2i takes one exposure based upon what its metering thinks is perfect. It then takes a second photo that is overexposed and then a third photo underexposed compared to the first photo. You then have three photos with exactly the same composition but at different exposures. This gives you the chance to select the best photo from the three.

If you need a large variation in exposure between your three shots, press the crosshair button to increase the size of the exposure gap. If you need only a slight variation, use the crosshairs to select a smaller gap. You may want to start with a '1 stop' variation and work from there. You should try an AEB setting of +/-2 for most daylight situations to bring some detail into the shadows but not eliminate them entirely.

Press the cross key to increase the size of the exposure gap. If you need only a slight variation, press the cross key to select a smaller gap, such as a 1 stop.

Try a setting of +/-2 for most daylight situations to bring some detail into the shadows but not eliminate them entirely.
Although using AEB may take some practice, you may find it is very useful in many photo situations.

Examples of three photos using AEB to deterimine the exposure setting.

You don't necessarily have to be in Continuous mode to use AEB but if not, you'll need to press the shutter button three separate times, which might be difficult to hold the camera steady for three separate shots.

For a little more control, use AEB either in Aperture Priority (Av) or Shutter Priority (Tv) mode. Using AEB in Aperture Priority mode allows you to choose the aperture you want for the shot and tells the camera to make the variations in shots by varying shutter speed. Using AEB in shutter priority mode keeps the shutter speed at the speed you select and tells the camera to vary the exposure by changing the aperture in your shots.

The Sky Is Too Light

How can I prevent the sky from appearing so light (washed out)?

Mode: Full Auto **Exposure:** 1/200
Aperture: f-9.0 **ISO:** 100

Mode: P (Program AE)
Exposure: 1/250 **Aperture:** f-10.0
ISO: 100 **Exposure Compensation:** -1

Sometimes everything about a photo is fine except the sky is too light.

By using exposure compensation, you can make the sky more vivid.

Turn the Mode Dial to P (Programmed Auto). (1)

Press the ◙ **(Quick Control) button to open the Quick Control screen. (2)**

Press the ⊚ **crosskey to select the Exposure compensation mode (3) and open the Exposure comp screen. (4)**

Press the ⊚ **right crosskey to select -1 (5) and press the SET button.**

Press the shutter button (5) halfway to frame the scene as desired.

When you have the photo framed, press the Shutter button (6) fully to capture the photo.
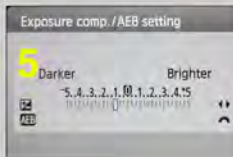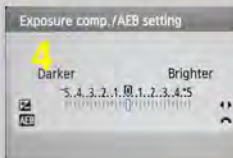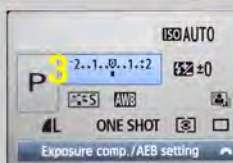
Tip Talk

The T2i usually does a good job of setting an average exposure for the main part of the scene. However, the sky and clouds are often "overexposed" using the average exposure setting, making it appear very light.

Using compensation exposure to reduce the amount of exposure of the sky and clouds can make the light areas of the scene more vivid. Keep in mind that too much exposure compensation may unduly darken the rest of the scene so you may want to experiment with the amount of compensation.

Beach Scene Is "Muddy"

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My beach photos, especially of the sand, are too dark and muddy. How can I prevent the sand from looking so dark?
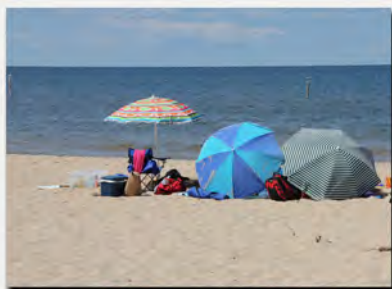
Mode: Full Auto   **Exposure:** 1/320
Aperture: f-10   **ISO:** 100

Mode: P (Program AE)   **Exposure:** 1/250
Aperture: f-8.0   **ISO:** 100
Exposure compensation: +1

Beach sand is sometimes quite difficult to photograph because the sand appears "muddy" and unnatural.

By using Program AE mode and exposure compensation, you can avoid the "muddy" beach scenes.

Turn the Mode Dial to P (Programmed Auto). (1)

Press the ▣ (Quick Control) button to open the Quick Control screen. (2)

Press the ◉ crosskey to select the Exposure compensation mode (3) and open the Exposure Comp screen. (4)

Press the ◉ left crosskey to select -2 (4) and press SET.

Press the shutter button halfway to frame the scene as desired.

When you have the photo framed, (6) press the Shutter button fully to capture the photo.

Tip Talk

Similar to adjusting the exposure for "The Sky Is Too Light," you can use the same technique for preventing sand scenes from appearing too light.

Zooming In On The LCD Monitor In Bright Sunlight

It's sometimes difficult to view the LCD monitor of your camera on bright sunny afternoons. You might be able to make it a bit easier to read the LCD monitor by adjusting its brightness.

Keep in mind, however, that Canon does recommend that you keep the LCD brightness level in the center of the adjustment scale. Therefore, if you do adjust it, make certain to adjust it back to its original setting.

❖ Press the MENU button.

❖ Press right crosskey to the second brown color coded Tools tab.

❖ Press the down crosskey to LCD brightness.

❖ Press the SET button.

❖ Press right or left crosskey to set the desired brightness.

❖ Press the SET button

Using Exposure Compensation And A Polarizing Filter

Here are two more examples of the same scene. We set the exposure compensation to -2 for the photo below and used a *polarizing filter* to capture same scene in the photo on the bottom.

Mode: Full Auto
Exposure: 1/800
Aperture: f-9.0
ISO: 100

Mode: Full Auto
Exposure: 1/500
Aperture: f-8.0
ISO: 100
Filter: Polarizing filter

A filter helps give you more control over how a photograph will look. Photographers use polarizing filters to reduce reflections from non-metallic surfaces or to darken the sky. An advantage of using this type of filter is that it's very difficult to use an image editor to create the effects of a polarizing filter on an image.

Fixing Flash Photos

Using the flash isn't difficult but it is something that sometimes requires a little bit of extra thought and planning. You'll probably use the flash most often when not enough light is available, such as a group portrait at gatherings.

There are, however, many other situations where you can use the flash too, such as fill-flash situations when the background is brighter than the subject, using the flash to light up a room and creating better coloring, or using the flash to freeze a moving object in a dark situation.

Flash Photo Is Too Dark

When I take a photos using the flash, the subject turns out too dark. Is there a way to prevent my subject from appearing so dark?

Mode: Full Auto **Exposure:** 1/60
Aperture: f-4.0 **ISO:** 400

Mode: P (Program Auto) **Exposure:** 1/60
Aperture: f-4.0 **ISO:** 400
Flash Exposure Compensation: +1

Sometimes your subject can appear too dark in your photo.

Use Flash Exposure Compensation to fix the problem.

Turn the Mode Dial to P (Program AE Zone). (1)

Press the flash button (2) to pop the flash (3). You'll find the flash button on the left side of the camera.

Press the ⚙ (Quick Control) button to open the Quick Control screen. (4)

Press the ⊙ crosskey to select Flash exposure comp (5) and press the SET button top open the Flash exposure comp screen. (6)

Press the ⊙ left crosskey to select +1 (7) (one f/stop more exposure) and press the SET button.

Compose your picture in the viewfinder and press the shutter button to capture the photo.
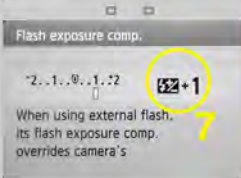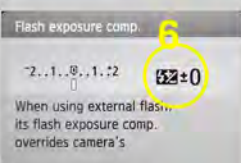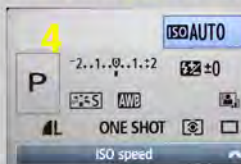
Canon T2i

Flash Photo Is Too Dark

Tip Talk

The T2i usually does a good overall job when taking flash photos. However, if you find that your photos are turning out too dark, you can use the camera's flash exposure compensation to add light to the scene. You may have to experiment some since one additional stop of exposure (+1) may overexpose the subject.

Zooming In On Clearing Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right crosskey to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up crosskey to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right crosskey only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

This will return the T2i to the original settings, for example, ISO, exposure, etc.

Faces Are Too Light

When I take a photos of my daughter using the flash, her face often turns out too light. Is there a way to prevent her face from appearing so washed out?

Mode: Portrait **Exposure:** 1/60
Aperture: f-5.0 **ISO:** 400

Mode: P (Program AE) **Exposure:** 1/60
Aperture: f-5.0 **ISO:** 400 **Focus:** Autofocus
Flash Exposure Compensation: -1

Sometimes your subject can appear "washed out" or too light in your photo.

Use Flash Exposure Compensation to reduce the brightness.

Turn the Mode Dial to P (Program AE Zone). (1)

Press the flash button (2) to pop the flash (3). You'll find the flash button on the left side of the camera.

Press the ◙ (Quick Control) button to open the Quick Control screen. (4)

Press the ◎ crosskey to select Flash exposure comp (5) and press the SET button top open the Flash exposure comp screen. (6)

Press the ◎ left crosskey to select -1 (7) (one f/stop less exposure) and press the SET button.

Compose your picture in the viewfinder and press the shutter button to capture the photo.
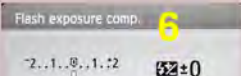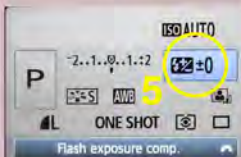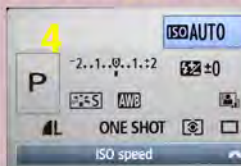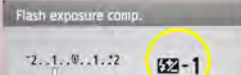
Tip Talk

When taking portraits with the flash, the faces may turn out too light, especially if you're close to the subject. When this happens, use the flash exposure compensation on your T2i to provide less light than used for a "normal" exposure. This feature determines the amount of light that is emitted by the flash, thus allowing you to provide a range of lightness (and darkness) that illuminates the subject.

Note that flash compensation appears on the menu only when the Main Dial is set to one of the Create Zones; it's unavailable when the Main Dial is set to any of the Basic Zones.

Exposure Compensation or Flash Exposure Compensation?

Don't confuse the Exposure Compensation of your T2i with its Flash Exposure Compensation.

The Exposure Compensation lets you intentionally lighten or darken the ambient lighting in the background and is completely separate from Flash Exposure Compensation; it has no effect on how much flash output strikes your subject. On the other hand, Flash Exposure Compensation affects only the flash output. The ambient light in your background will remain unchanged as you adjust Flash Exposure Compensation.

Don't be surprised if you find that you need to use Flash Exposure Compensation occasionally in fill-in flash photos. Also, if you think the flash output in your fill-in shots isn't quite right, you can adjust it by increasing or decreasing the amount of exposure.

Background Is Black Or Too Dark

When I take flash photos in Portrait mode, the main subject turns out fine but the background is almost completely black so we cannot tell where the photo was taken. Is there a way to lighten up the background?

Mode: Full Auto   Exposure: 1/60
Aperture: f-4.5 ISO: 400

Mode: Night Portrait   Exposure: 1/10
Aperture: f-4.5 ISO: 400

The main subject in this photo turned out fine but the background is too dark.

By simply switching to Night Portrait, the background now appears brighter.

Turn the Mode Dial to Night Portrait mode. **(1)**

Press the shutter button halfway **(2)** to "pop" open the flash unit. **(3)**

Compose your picture in the viewfinder **(4)** and press the shutter button to capture the photo.

Canon T2i

Background Is Black Or Too Dark

Tip Talk

When you're using the flash in the Portrait mode, your camera determines a normal exposure based on the distance from the subject. Since the subject is usually separated from the background, the background receives little or no light from the flash. The result is that the background appears darker or blacker in the photo.

Any existing light that is illuminating the background is known as *ambient light*. When you change the mode to Night Portrait mode, the camera uses a slow flash synchronization speed. Using a slower speed, the camera can capture both the subject with the flash and the background with the ambient light.

Since the shutter speed may be low, you'll want to hold the camera steady when using Night Portrait mode so as not to introduce camera shake.

Harsh Lighting

My flash photo has enough light but it's harsh, which makes the photo very "contrasty." What can I do to make the light less harsh?

Mode: Portrait   **Exposure:** 1/60
Aperture: f-4.5   **ISO:** 400
Flash: Fired (flash uncovered)

Mode: Portrait   **Exposure:** 1/60
Aperture: f-4.5   **ISO:** 400
Flash: Fired (Tissue covering flash as a diffuser)

Harsh lighting conditions can add objectionable contrast to your photos.

A simple way to overcome harsh lighting conditions is to cover the built-in flash with a facial tissue.

In harsh lighting situations you should consider using a *diffuser*. Although you can buy a diffuser at your favorite camera store, you can also make a simple one.

Find a clean, white handkerchef, Kleenex® or even a baby sock to use as a diffuser.

Place the diffuser over the flash. **(1) and (2)**

Compose your picture in the viewfinder and press the shutter button to capture the photo. **(3)**

Tip Talk

The concentrated light that comes from the flash produces bright highlights and strong shadows. By placing a diffuser over the flash, the light from the flash bounces from the ceiling, walls and other surfaces thereby softening the light. The resulting flash is spread more evenly over the subject and reduces harshness.

Taking Better Nighttime Photos

Don't be shy about taking photos at night. You have an almost endless amount of photo opportunities to select...traffic lights, people walking, bridges, etc.

Grab your Canon T2i and venture out into the night.

Shooting Buildings At Night

I've wanted to try nighttime photography. I know the shimmering and colorful lights can transform dark backgrounds into beautiful images. Although the lights do shimmer in my photo, the overall photo is blurry. How can I fix this?

Mode: Flash Off　**Exposure:** 1/8
Aperture: f-4.5　**ISO:** 3200
Camera Hand-held

Notice how the lights shimmer in this nighttime photo but that it's too blurry overall. The reason for the blurry photo is camera shake.

Mode: Flash Off　**Exposure:** 1/8
Aperture: f-4.5　**ISO:** 3200
Camera placed on a solid flat surface

Simply setting the camera on a sturdy surface reduces the chances of taking a blurry nighttime photo.

Turn the Mode Dial to Flash Off. **(1)**

Stabilize your camera on a flat surface **(2)** with the lens pointing at the subject. (Make certain it's a safe and strong surface.)

Press the shutter button **(3)** down halfway and verify that the scene is composed to your liking.

Press the shutter button **(3)** fully to capture the photo.

Canon T2i

Shooting Bridges Or Buildings At Night

Tip Talk

The blur of the subject comes from *camera shake*. In this photo, the camera automatically set a 1.6 second shutter speed. No photographer, however, can hold a camera steady while the shutter is open for that length of time. The typical way to "fix" the blur is to use a tripod.

The problem is that you can't always carry a tripod with you even though you still need to keep your camera steady when you're taking night shots. The answer is setting your T2i on a sturdy, flat surface instead of using a tripod. This will help eliminate, or at least greatly reduce, the chances of camera shake and a blurry nighttime photo.

Night Photography Without The Flash

We already know that minimizing camera shake can mean the difference between a good and a great nighttime photo.

Here's a nighttime photo of an attractive building. The building is located in an area that was very dimly lit and the camera automatically set an exposure of three seconds.

Mode: Full Auto **Exposure:** 1/5
Aperture: f-4.5 **ISO:** 1600
Flash: Not fired

Mode: Full Auto **Exposure:** 1/5
Aperture: f-4.5 **ISO:** 1600
Flash: Not fired

Although the camera was placed on a flat surface, the photo is still blurry.

Another way to prevent camera shake is to use the self-timer on the T2i.

Turn the Mode Dial to Auto. (1)

Press the ⊙ **left crosskey to open the Drive mode screen. (2)**

Press the ⊙ **right crosskey to select Self-timer: 2 sec. (3)**

Press the SET button.

Place the camera on a flat surface to prevent camera shake. Make certain the lens is pointing at the scene.

Press the shutter button (4) down halfway to verify that the scene is composed to your liking.

Press the shutter button (4) down fully. You'll hear the faint beep of the self-timer. After the time counts down two seconds, the shutter is released to capture the photo.
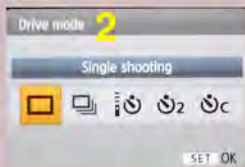
Night Photography Without The Flash

Canon T2i

Tip Talk

When you press the shutter button, you're likely to produce camera shake. This is epecially true with nighttime photography. By using the self-timer feature, the camera has a few seconds to stabilize itself. This is usually enough time to remove the excess camera shake so you can capture a sharper image.

Zooming In On Clearing Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right crosskey to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up crosskey to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right crosskey only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

This will return the T2i to the original settings, for example, ISO, exposure, etc.

Bright Lights

Some of my night shots are actually too bright. What can I do to prevent this?

Mode: 🚫 Flash off   **Shutter:** 1/60
Aperture: F-6.3   **ISO:** 3200
Flash: Not fired

Mode: P (Programmed Auto) **Shutter:** 1/125
Aperture: F-6.3   **ISO:** 3200
Exposure Compensation: -1

This photo shows the lights are too bright.

The night lights don't "burn" as bright in this photo.

Canon T2i

Bright Lights

Turn the Mode Dial to P Program AE mode). **(1)**

Press the ▣ (Quick Control) button to open the Quick Control screen. **(2)**

Press the ⊙ right crosskey to select ISO **(3)** and to open the ISO settings screen. **(4)**

Press the ⊙ right crosskey key to select **400 (4)** from the choices and press the SET button.

Press the ⊙ right crosskey to select the Exposure Compensation **(5)** and to open the Exposure Compensation screen.

Press the ⊙ left crosskey to select **–1**. **(6)**

Press SET.

Press the shutter button halfway and verify the scene is to your liking.

Press the shutter button fully to capture the photo.

Tip Talk

Your camera automatically sets longer shutter speeds in low-light situations. To prevent camera shake, you can set the camera on a flat surface.

Keep in mind that photography is subjective so the choice of which photo is better is up to you; some may prefer the first photo with the brighter light.

This is also another advantage of using a digital camera because you can use both techniques and print both photos.

Zooming In On Clearing Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right crosskey to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up crosskey to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right crosskey only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

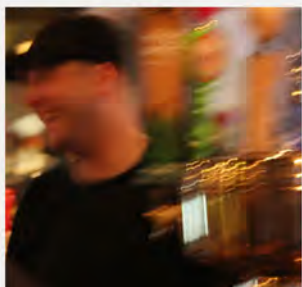This will return the T2i to the original settings, for example, ISO, exposure, etc.

Nighttime Action

I'd like to take photos in our exciting, bustling nighttime environment. But many places won't let you use flash, even though the lighting is dim. Do you have any suggestions for taking better shots?

Mode: Flash off Exposure: 1.3 sec
Aperture: f-5.0 ISO: 3200

Mode: Flash off Exposure: 1.3 sec
Aperture: f-5.0 ISO: 3200
Elbows firmly braced on the countertop
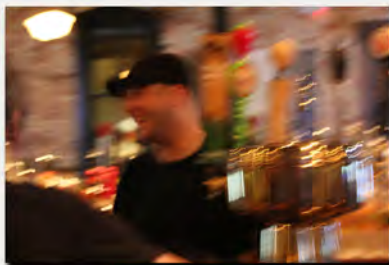
In the dark restaurant, the exposure was a long 1.5 seconds thereby blurring the subject.

By bracing the camera, the subject is not blurred.

You have to deal with at least two challenges here...exposure time and low light. However, by boosting the ISO, you can use a shorter exposure.

Turn the Mode Dial to Flash Off. (1)

Press the **Q** (Quick Control) button to open the Quick Control screen. (2)

Press the right crosskey to select ISO (3) and to open the ISO settings screen. (4)

Press the right crosskey to select 3200 (4) from the choices and press the SET button. (5)

Hold the camera as steady as you can -- perhaps bracing your elbows on a table surface. (4)

Carefully press the shutter button (5).

Canon T2i

Nighttime Action

Tip Talk

Most photographers use a tripod when taking long exposures. If you're in a situation where it's not practical to use a tripod, you can duplicate the function of a tripod to reduce camera shake or movement by bracing the camera against a sturdy surface.
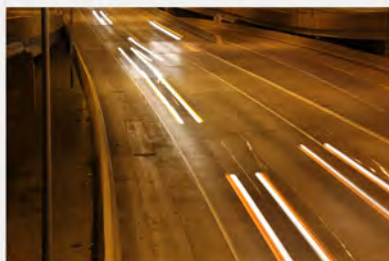
Traffic Streaks & Lights

How can I capture the moving headlights of auto traffic?
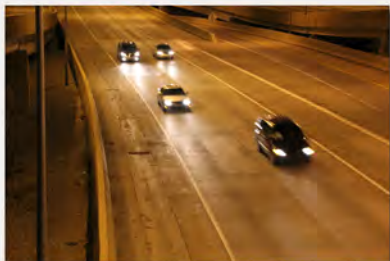
Mode: Flash off   **Exposure:** 1/30
Aperture: f-5   **ISO:** 3200

Mode: Tv (Shutter Priority)   **Exposure:** 1 sec
Aperture: f-5.6   **ISO:** 100

You may "stop" the action of the traffic by using the the Flash Off mode.

By setting the shutter speed for a long exposure, you can create exciting streaks of light.

You'll need to use a tripod or a place the camera on a solid surface on which to set the camera for this shot.

Turn the Mode Dial to Tv (Shutter Priority). (1)

Press the ◘ (Quick Control) button to open the Quick Control screen. (2)

Press the ◉ crosskey to select ISO (3) and to open the ISO settings screen. (4)

Press the ◉ right crosskey to select 100 (4) from the choices and press the SET button. (5)

Turn the Main Dial (3) to select a shutter speed of 2" (6) (which stands for 2 seconds).

Wait patiently until traffic is flowing with multiple sets of headlights in the viewfinder.

Press the shutter button carefully to (7) minimize camera shake and capture the photo. (Make certain not to hold down the shutter button but to press it.)
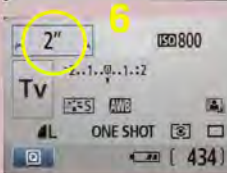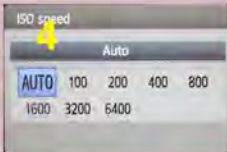
Tip Talk

By using a relatively long shutter speed (2 seconds), you can record the auto lights as a streak of lighs rather than a single headlight.

Experiment using different shutter speeds. You'll capture varying "lengths" of light streaks to produce interesting and colorful effects.

More Ideas On Taking Nighttime Photos

Here are a few more tips and suggestions for shooting nighttime photos.

Tripod

If you plan to take lots of photos at night, a tripod is essential. Mounting your camera on the tripod prevents camera shake, the most common cause of blur.

Keep in mind that the most important feature of a tripod is to povide a stable platform for your camera so make sure that its legs are sturdy. You'll find that the range and cost of tripods varies widely depending on the other features: weight, ease of setup and quality of the head (platform) to name a few.

But for nighttime shots, you'll find that taking pictures with a low-cost tripod is better than taking them without a tripod.

Keep your tripod handy and you'll find your nighttime photos greatly improved.

More Ideas On Taking Nighttime Photos (continued)

Camera Mode

When set to Night Portrait mode the camera tries to blend the background lighting of a scene with the foreground. Depending on the lighting, the flash may pop up to light your subject in the foreground.

If you don't want to introduce flash into your photo, use Flash off mode instead. Without flash, keep your subject from becoming too dark by positioning the subject so that the available light is falling on his or her face.

If your pictures are too dark with Flash off mode, use Program AE mode and boost the ISO to the maximum setting of 6400.

Self-Timer

The self-timer is your phantom remote control. You can set the T2i to have either a 2 second delay or a 10 second delay. Normally, pressing the shutter introduces shake to your nighttime photos, but with the slight delay, the camera has time to stabilize before the scene is captured.

Press the Self-timer button and then the right crosskey to select self-timer

Small Flashlight

A small flashlight comes in very handy when its dark and you need to adjust the camera settings. We suggest using a miniature model that focuses its beam on a small area and won't spoil your nighttime vision. This small model costs less than $3.00 and fits easily into a camera bag.

More Ideas On Taking Highttime Photos (continued)

Remote Control or Remote Switch

Consider buying a remote control or remote switch. These handy accessories let you release the shutter without introducing any camera movement. Canon has 3 remotes for the T2i:

RS-60E (pictured above right #1) Is a wired device provides same functions as shutter release (cost about $29.00).

RC-5 (pictured near photo #2) Is a small infrared device that provides a two second delay (cost about $25.00).

RC-1(pictured near photo #3) Is a small infrared device that provides instant release or 2 second delay (cost about $25.00).

Showing Motion In Your Photos

Your Canon T2i is known as a still camera but that doesn't mean that you cannot use it to capture the feeling of motion in your subjects.

Suggesting Motion In Photos

I've seen photos where some of the scene is sharp but the subjects seem to be moving. How can I recreate this effect to show that the subject is a live, animated person and not a statue?

Mode: Sport Mode   **Exposure:** 1/320
Aperture: f-4.0   **ISO:** 640

Mode: Tv (Shutter Priority)   **Exposure:** 1/25
Aperture: f-5.6   **ISO:** 100

When using Full Auto mode, the photos usually stop action.

By switching to Tv mode, you can introduce motion to make your photos "come alive."

Turn the Mode Dial to Tv (Shutter Priority). (1)

**Press the ◙ (Quick Control) button to open the Quick Control screen. (2)**

Turn the Main Dial (2) to select a shutter speed of 1/30. (3)

Compose your scene with the main subject in the center of the viewfinder. (4)

Press the shutter button halfway. (5)

Wait patiently for the moment when your main subject's face is still, but his/her hands or legs are moving.

Press the shutter button fully to capture the picture. (5)
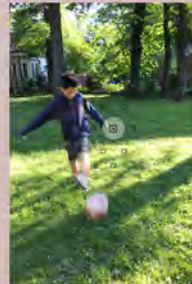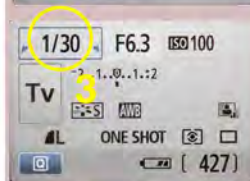
Tip Talk

By setting your camera to use a relatively slow shutter speed, such as 1/30, you can introduce motion into your photos. When you capture the picture as the subject moves his/her hands, they will appear blurred thereby creating the effect of motion.

If you can hold the camera steady, you may be able to use a shutter speed as long as 1/8th or 1/4th of a second, especially if your lens has the IS (Image Stabilization) feature.

Conveying A Sense Of Motion By Panning

When using Sports mode to shoot my son doing tricks on his bicycle, the resulting photo looks great with everything sharply in focus. However, I've seen shots where the biker is in focus with the background out of focus. How can I get this effect?

Mode: Sports **Exposure:** 1/400
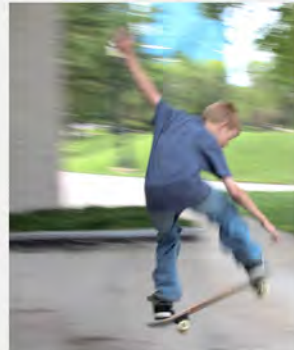**Aperture:** f-4.5 **ISO:** 100
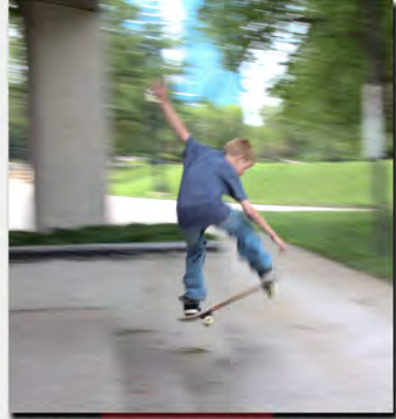
Mode: Tv (Shutter Priority) **Exposure:** 1/30
Aperture: f-8.0 **ISO:** 100
Panning the subject

Your photos may look "flat" when you use the Sports mode because there isn't a sense that anything is happening.

By using a slower shutter speed and by panning, you can introduce motion to your photo and help it "move."

Turn the Mode Dial to Tv (Shutter Priority). (1)

1

Press the Q (Quick Control) button to open the Quick Control screen. (2)

**Turn the Main Dial (2) to select a shutter speed of 1/250. (3)**

2

Press the right crosskey to select AF mode and to open the AF mode settings screen. (4)

3

Press the right crosskey to select AI SERVO (5) from the choices and press the SET button.

4

Press the shutter button halfway.

Compose your scene by slowing following the motion of your subject in the viewfinder. For best results, you'll want to keep the subject centered in the viewfinder. (6)

5

Press the shutter button fully to capture the picture.
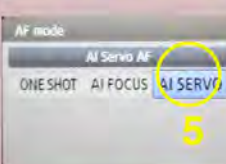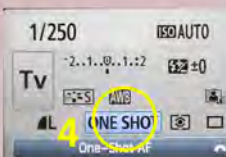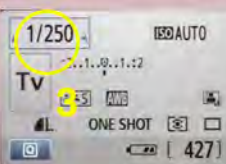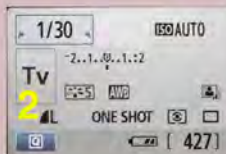
Canon T2i

Conveying A Sense Of Motion By Panning

Tip Talk

The technique of following the subject in the viewfinder is called *panning*. If done properly, the motion of the camera will make the background blurred while at the same time keeping the main subject sharp and in focus. This adds to the feeling of action.

You'll want to practice this technique to become proficient. To achieve the best results, when following the subject in the viewfinder remember to move the camera slowly and steadily until you gently squeeze the shutter button.

Zooming In On Panning

The technique of panning to convey a sense of motion is one that takes practice. You'll need slow shutter speeds and steady hands.

One reason that panning requires practice is that unlike most of your other photos, panning means you're moving the T2i instead of holding it still.

Note the subject in this diagram is moving from left to right but could be moving in the other direction or up or down. What is important is that you can follow the movement evenly throughout the time it takes to capture the photo. How fast and how close the moving subject is will determine the shutter speed to use.

Use a slower shutter speed if you want to emphasize the sense of movement but keep in mind that this will make it more difficult to keep your camera steady.

Apparent background motion

Subject Motion

Panning Motion

Plant your feet, draw your arms into your body, hold your camera securely and rotate the top half of your body as you track your subject. Pan as fast as the subject moves so you keep it in the same position in your viewfinder. Press the shutter down as you continue your motion and follow through even after the shutter has closed. Use continuous shooting mode if you have time for more exposures.
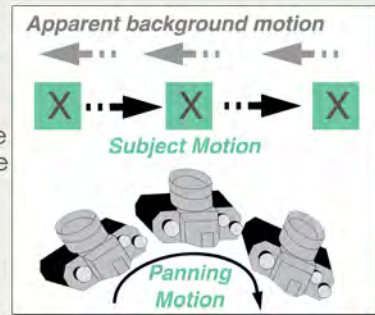
Making Water Flow

After shooting a scenic waterfall, the water appeared to "hang" in midair in the resulting photograph. How can I make the water appear as if it were flowing?
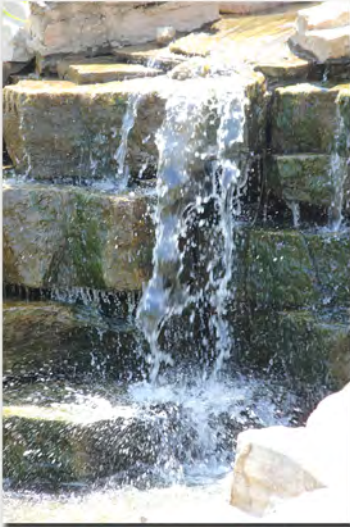
Mode: Full Auto   **Exposure:** 1/200
Aperture: F-6.3   **ISO:** 640

Mode: Tv (Shutter Priority AE)   **Exposure:** 1/6
Aperture: F-16   **ISO:** 100

Using Full Auto mode may stop the action resulting in no sense of the water flowing.

By switching to Shutter Priority, the water looks like it's flowing.

Turn the Mode Dial to Tv (Shutter Priority AE). (1)

Press the ▣ (Quick Control) button to open the Quick Control screen. (2)

Press the ⊙ right crosskey to select the ISO mode (3) and open the ISO setings screen. (4)

Press the ⊙ left crosskey to select AUTO (4) and press the SET button. (5)

Turn the Main Dial to select a shutter speed of 1/6. (5)

Compose your scene in the viewfinder. (6) Press the shutter button halfway.

Press the shutter button (7) fully to capture the picture.

Canon T2i

Making Water Flow

Tip Talk

Water drops over a waterfall at a rapid rate. By using a slow shutter speed to capture the scene, the water appears to "flow" adding to the feeling of motion. By using an even slower shutter speed than 1/30 of a second, you may be able to create the "mist effect."
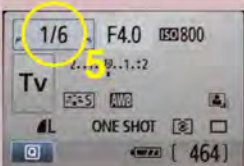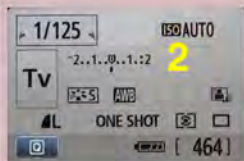
Zooming In On Clearing Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right crosskey to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up crosskey to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right crosskey only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

This will return the T2i to the original settings, for example, ISO, exposure, etc.

Taking Better Nature Photos

I enjoy nature photography and want to capture the birds visiting my backyard. How can I capture the action of my winged friends?

Mode: Full Auto   **Exposure:** 1/160
Aperture: f-10.0   **ISO:** 200

Mode: P (Program AE)   **Exposure:** 1/350
Aperture: f-13.0   **ISO:** 800

Although this shot is nicely composed, it doesn't convey much action.

By being patient and waiting for the right moment, you can capture a more interesting photo.
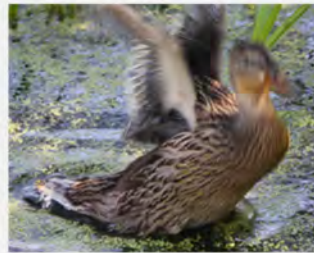
Turn the Mode Dial to P (Programmed Auto). (1)

Press the ⊚ **left crosskey to open the Drive Mode screen.**

Press the ⊚ **right crosskey and select Continuous shooting. (2) Press the SET button.**

Press the ⊚ **right crosskey to open the AF mode screen. Press the** ⊚ **right crosskey to select AI SERVO (3) and press the SET button.**

Press the AF point selection button (4) to open the AF point selection screen. (5) Rotate the Main Dial to select the center focus point.

Compose your scene. (7) Make certain the center focus point over the bird blinks red in the viewfinder.

Press the shutter button halfway to lock the focus.

Press the shutter button fully to capture the picture. To make multiple shots, keep the shutter button depressed and move the camera slowly in the direction of the motion.
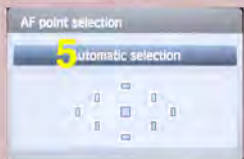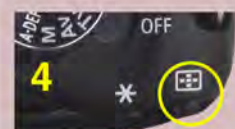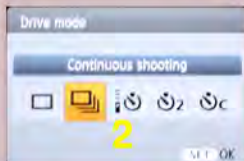
Tip Talk

Taking photos of wildlife is often a labor of patience. You may have to wait several minutes or even hours for that perfect moment to capture your favorite bird or wild animal.

To maximize your chances of capturing the best photos, have your camera set to take multiple shots (Continuous Shooting Mode) so that you can choose from a group of photos.

About The T2i Movie Features

One of the features that certainly attracted you to the Canon T2i is its ability to take movies. The T2i's movie capabilities are impressive.

We'll just touch on the basics of shooting movies with your T2i in this chapter.

One of the features that certainly attracted you to the Canon T2i is its ability to take movies. The T2i's movie capabilities are impressive. Although this isn't the first DSLR that also includes movie capture, the ease of use and image quality are superior to previous cameras.

You'll most likely be able to find complete books that cover the topic of shooting and producing movies using the T2i, something that we won't attempt at this point. Instead, we'll just touch on the basics of shooting movies.

Turn the mode dial to Movie shooting, set the focus and you're ready to start recording. It's that easy. But there's plenty more you may want to know to capture quality movies. Here's a few tips that we've found helpful as we learn to use the T2i's movie features:

Recording Quality

The T2i has several settings for capturing movies. Three of these settings are for high definition and two settings are available to conserve space on the recording media (SD/SDHC card):

(1) 1920 pixels X 1080 pixels at 30 frames per second

Use this setting for T2i's highest quality recording; in less technical terms, this setting takes movies at a rate of 30 images per second that are 1920 pixels wide and 1080 pixels high

(2) 1920 pixels X 1080 pixels at 24 frames per second

Choose this setting to be compatible with the "Hollywood standard" 24fps

(3) 1080 pixels X 720 pixels at 60 frames per second

Choose this setting if you're recording action that you intended for playback in slow motion

(4) 640 pixels X 480 pixels at 60 frames per second

Choose this setting to conserve space with lower overall quality; provides about twice the recording time compared to (1), (2) and (3) above.

(5) 640 pixels X 480 pixels at 60 frames per second cropped

Choose this setting if you want to capture "close up" action; only the area within the central part of the viewfinder is captured. Since this "magnifies" the scene by seven times, you'll want to use a tripod to steady the camera.

Turn the Mode Dial to the Movie shooting mode. (1)

Press the Menu button. (2)

Press the ⊚ crosskey to select Movie rec size. (3)

Press the ⊚ crosskey to choose the desired quality setting. (4)

Press the SET button.
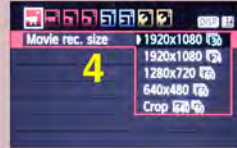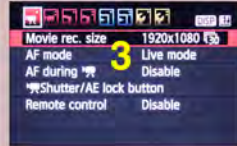
For movies intended for online viewing, we usually use 640 x 480 pixels at 60 frames per second.

For highest quality movies such as those that we'll later transfter to a DVD for large-screen viewing, use the 1920 x 1080 pixels at 30 frames per second. See the following diagram on how to set the recording quality.

Lighting

Pay careful attention to the lighting of the overall scene. When possible, choose a scene that does not have strong differences in darkness and lightness. In other words, choose your shooting location scene where the background and foreground share similar lighting levels. Viewing a movie that has high contrast (stark differences in the lightness and darkness) is often distracting.

The T2i is able to capture images in relatively low light. Keep in mind that the quality of the images is very much related to the amount of light — more light produces better quality images. When the T2i's Movie exposure is set to Auto, the camera chooses a setting that is appropriate for the amount of light present in the scene. If you set the Movie exposure to Manual, choose as low an ISO setting as possible to ensure the best quality images.

Be sure to match the white balance of the T2i to the lighting. For example, setting the camera's white balance to cloudy adds warmth to the finished movie when the sky is overcast. This is also important when shooting movies indoors and you're using artificial lighting. See the following diagram for information on setting the white balance for movies.

Turn the Mode Dial to the Movie shooting mode. (1)

Press the ⧉ (Quick Control) button.

Choose the AWB (white balance) icon at the top. (2)

Rotate the Main Dial to choose the desired white balance (Daylight in this example). (4)

Setting The White Balance (Movies)
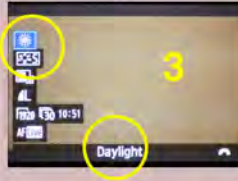
Scene

One way to keep your audience interested in your movies is to let them see the big picture. Include clips that show your viewers where they are in relationship to your closeup scenes. Recording a closeup of your high school graduate's face may be your goal, but it may have more meaning when you can see that she is standing at the podium giving a valedictorian speech.

Varying the camera's viewpoint creates interest. Don't forget that in addition to the main action in front of you, there also may be other action taking place behind, above or below. If you're sitting at the ballpark recording your favorite baseball team on field, you'll also see dozens of spectators all around you so why not make them part of the scene?

Shooting a 6' 8" basketball player may require you to stand on a step ladder. Shooting a small child may require you to bend down to his / her level.

Avoid shooting from a single, fixed location. Move around to find other interesting angles. Moving even a few feet to the left, right, forward, backward, up or down can make a huge difference in the finished movie.

Action

"Shooting movies" begs for action. Beginning movie makers often try to make their own action by following the action — *panning* — which usually results in shaky movies.

If you're using a zoom lens, choose a wider angle setting. Shooting with a wider angle setting lets you pan slower and more smoothly.

If you're using a fixed focal length lens, choose a length that minimizes the shake — we'd recommend a focal length less than 85mm. If your scene demands a longer focal length, you'll want to mount the camera on a sturdy tripod with a head that can pan smoothly. If your lens has Image Stabilization make sure that the Stabilizer switch is set On.

Keep in mind that professional movies aren't shot as a single continuum. Yes, it would be convenient to start shooting when the action starts and stop shooting when the action stops, but very few recordable events make for an enjoyable movie when played back as exactly as originally recorded. To make the most from your T2i's excellent movie capabilities, you'll have to edit the recordings into multiple clips and combine them afterwards using movie editing software a personal computer.

Focus

For shooting movies, there are three ways to use the T2i's auto focus:

1. Quick Mode

2. Live Mode

3. Live Mode with face detection

Quick Mode

When using Quick Mode, the nine AF points appear on the LCD screen. Follow these steps to make the AF points selectable:

1. Press the Quick Control button and then one of the crosskeys. The AF points will turn blue.

2. Use the Main Dial to select the desired AF point.

3. Move the Magnifying frame using the crosskeys.

4. Press the Magnify button once to zoom the LCD 5x or twice to zoom the LCD 10x.

5. Press the Shutter button halfway to focus.

6. The AF point will flash red.

Live Mode or Live Mode with face detection

When using Live Mode or Live Mode with face detection, the AF point is the larger white rectangle. Follow these steps to make the AF points selectable:

1. Move the AF point using the crosskeys.

2. With Live Mode (but not Live Mode with face detection), press the Magnify button once to zoom the LCD 5x or twice to zoom the LCD 10x.

3. Press the Shutter button halfway to focus.

4. The AF point will flash green.

5. You can press the Shutter button halfway during shooting to refocus.

Zooming

When using a zoom lens, the camera will not continuously auto focus when you're shooting movies. However, by enabling AF during movies you can refocus as you are recording. See the diagram on the following page for more information on enabling the AF.

We don't recommend using this method when autofocus is set to AF Quick since the recording will be interrupted. When autofocus is set to AF Live or AF "L" any interruption to the recording is minimal.

If you disable AF during movie, you can manually re-focus the lens while the camera is already recording. This is not an easy operation to perform and you'll want to use it sparingly.

Press the Menu button. (1)

Press the ⊙ left or right crosskey to select the icon on the far left. (2)

Press the ⊙ left or right crosskey to select AF during movie (3) and press the SET button.

Press the ⊙ left or right crosskey to select Enable and press the SET button. (4)

During recording, you can press the Shutter button halfway to refocus. (5)
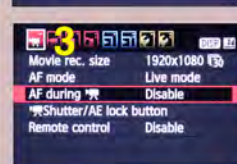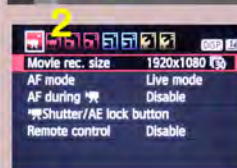
Exposure

The easy way to shoot movies is to set Movie exposure to Auto from the Menu. Keep in mind that as areas of lightness or darkness in the scene changes, the auto exposure setting may capture videos that are too light or too dark. To prevent these unwanted changes, you can lock the exposure for a scene by pressing * before or during the recording. You can also adjust the exposure (+/-) compensation before or during the recording.

You can also set your exposure manually. Press the Menu button; press the crosskeys to select the second icon and press the Set button; Press the crosskeys to select Manual and press the Set button; Finally press the Menu button. Press the ISO button, rotate the Main Dial to set the ISO speed and press the Set button. Rotate the Main Dial is used to set the shutter speed. While pressing the Av button, rotate the Main Dial to set the aperture. For best results, set the shutter speed between 1/30th and 1/125th.

Using a relatively slow shutter speed of 1/30th to 1/125th in bright light, you may not be able to avoid overexposing your movies, especially if you'd like to use a large aperture to blur the background. One way to solve this problem is to purchase a neutral density filter top place over the lens. This reduces the amount of light reaching the camera avoiding bright light overexposure. A neutral density filter of 4 stops (16X) should do the trick.

Sound

The built-in microphone on the T2i is located on the front of the camera, close to the flash button. This small microphone is quite sensitive, so much so that it may record the adjustments made by your lens' auto focus motor or whispers from you while addressing your actors. For simple movies, sound recording using built-in monaural microphone is acceptable.

If you're interested in the best sound quality, you may want to invest in a small, stereo boom microphone or a wireless remote microphone. These two types of microphones isolate extraneous noise from the recording.

Common Questions

Question: When shooting movies, the camera begins recording for a few seconds and then suddenly displays the message "Movie recording has been stopped automatically". What is the problem?

Answer: Most likely, the problem is with the SD card that you are using to record your images and video. SD cards are classified by the speed at which the camera can write to the media. For the T2i, Canon recommends

that you use a Class 6 SD or SDHC card. Using a lower class card prevents the camera from capturing the video at a rate required for high definition recording.

Question: How can I smooth out my movies?

Answer: If your lens is equipped with Image Stabilization, make sure that the Stabilizer switch is On. If you will be panning, use a slow, steady motion.

Professionals suggest that you mount your camera on a sturdy tripod equipped with a fluid head that lets you follow the action without the jitter found in handheld videos. However, this can set you back $300 or so for this equipment.

Taking Care Of Your Camera

After spending hundreds of dollars to buy your Canon T2i camera, it's now important to protect your photography investment by caring for it in the best way possible.

Accessories

As a proud owner of a Canon T2i, you'll probably soon own more than just the camera. Since DSLRs are *system* cameras, you can easily extend the capabilities of your T2i by adding accessories, such as lenses, filters, batteries, chargers, picture cards and more.

Camera strap

You'll usually rely on the camera strap when carrying your camera. As you lengthen your shooting sessions, you may discover that your camera seems to feel heavier. The innovative R-Strap is worn diagonally across the torso from shoulder to hip and is adjustable to fit most photographers.

The lightweight RS-4 is an innovative solution for both comfort and easy of access for any camera. The R-Strap has a sizing adjustment located on the front for quick adjustments. It also features a quick access, secure pocket for storing two extra memory cards in their protective cases.

The locking FastenR connects the R-Strap to the tripod socket located on either the camera body or the lens. Once connected, the camera hangs upside down, resting securely at your side or in the small of your back, with the lens pointing behind you.
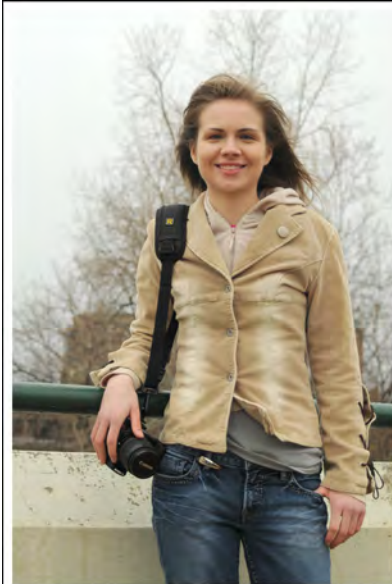
The lightweight R-Strap (www.blackrapid.com) is an innovative alternative to the camera strap.

With the camera at your hip or behind your back, you can maneuver quickly and easily through a crowd, carry a tripod or other gear, or simply have both hands free.

When you're ready to take the shot, the camera quickly glides up the strap into shooting position.

Camera Bag

You certainly don't want to just toss your camera into your car or backpack and head out for a photo shoot. Instead, you're likely to want it to keep working for more than a few months. Therefore, you might consider the safety of a protective camera bag.

How do you choose the right camera bag? Consider the type of photos you'll be taking and what you'll need to take those photos, such as lenses, filters, extra batteries, etc. You should also think about future accessories you may be purchasing. Look for a camera bag of the appropriate size to hold it all.

The camera bag should feature durable, well padded exterior walls. Look for adjustable compartments on the inside of the bag so you can safely separate your accessories.

The camera bag should include several pockets either inside or outside the bag where you can keep smaller items like filters and batteries. Although the bag should have secure, strong latches, make certain you can open them easily with one hand because you may be holding your camera in the other hand. Finally, you want a durable exterior that can hold up to being bounced around.

See the checklist on page 171 for information on what you might want to have in your camera bag.

Jill-e Designs features a line of camera bags designed specifically for the female photographer (see www.jill-e. com for details).

Another camera bag idea is the Shootsac. It lets you transport lenses and other camera accessories not only safely but also fashionably. It holds three to six lenses and other accessories safely and conveniently at your fingertips. Unlike most camera bags, you can fold it completely flat for easy transportation and storage.

Its slim ergonomic shape hugs your body so you feel sleek and mobile instead of clumsy and bulky.

The Shootsac (www.shootsac.com) lets you transport your camera and accessories safely and fashionably.
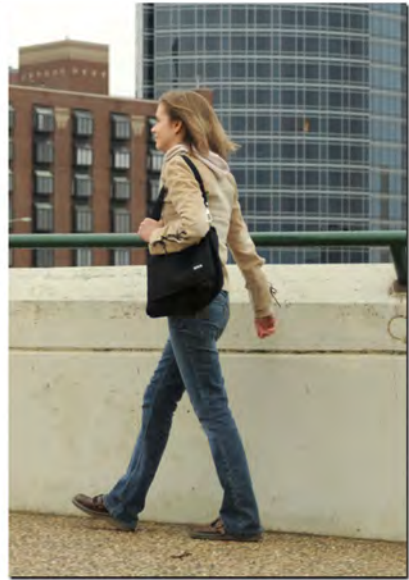
The slim design of the Shootsac actually makes it less obvious that you are carrying camera equipment.

Tripods, Monopods & Pods

Although you won't always need a tripod, they're nevertheless an accessory you may want to consider.

However, you won't always need to carry around the typical large, heavy tripod. Several types of tripods are now available that you can even carry in a pocket or camera bag.

We've already talked about a few different examples (see page 143). Other similar ideas include the Pod (www.thepod.com). It's a flexible beanbag with a mounting bolt to connect to your T2i. You can set it up quickly on tables, rocks, cars, benches, etc.

Protecting The LCD Monitor

One overlooked area of camera protection is the LCD monitor. Although a fingerprint or slight scratch won't hurt the camera, a deep scratch could be a problem. Therefore, you should cover the LCD monitor with a clear adhesive film that is made for cameras.

You can find the LCD screen protectors at camera stores or the internet for a few dollars.

Cleaning Accessories

Keeping your camera clean inside and outside is important but be careful when doing so. Make certain to use a blower instead of canned air. Canned air has moisture and can freeze parts as the compressed air is released. Furthermore, your camera isn't airtight and canned air may blow dust into the inside of the lens.

Occasionally wipe your camera with dry or slightly damp lint-free cloth (eyeglass cloths or microfiber cloths are good for this purpose). Be very careful not to get the controls and the electronics wet.

An item to have handy is the Spudz Microfiber Lens Cloth. The cloth stays hooked inside a protective pouch but is small enough for you to carry easily in your camera bag. See www.alpineinnovations.com for more information.

You can connect the Spudz Microfiber Lens Cloth (www.alpineproducts.com) to your camera strap where the cleaning cloth stays hooked inside a protective pouch.

Fun Accessories

Make certain to have some fun with your photography, too. One way is by sharing your photos in different ways. You're probably familiar with Flickr and other photo sharing sites on the Internet. However, you can share photos in other ways as well, such as in digital photo key chains, digital pens, digital slideshows, digital photo frames and more.

Quick Care Suggestions

Here are some quick things you should do take care of your camera:

Recovering Deleted Photos

Although accidently deleting photos or formatting the memory card before moving the photos to your computer doesn't sound like a common problem, it can happen to anyone at anytime. Fortunately you may be able to recover some or all of the missing photos even after you format the SD card by using special recovery software.

You can find several reasonably priced recovery software packages on the Internet. Use a search engine such as Google and type "SD card recovery software" for the search.

These programs typically need your camera to be connected to your computer (so the SD card appears as a drive letter on your computer). You can also use a digital camera card reader instead of connecting the camera to the computer.

The recovery programs work similarly and have similar features. You install the software, connect your T2i to your PC (or insert the SD card into a card reader connected to your PC) and run the recovery software. It will scan your memory card or your PC hard drive and then display the photos/files it can recover.
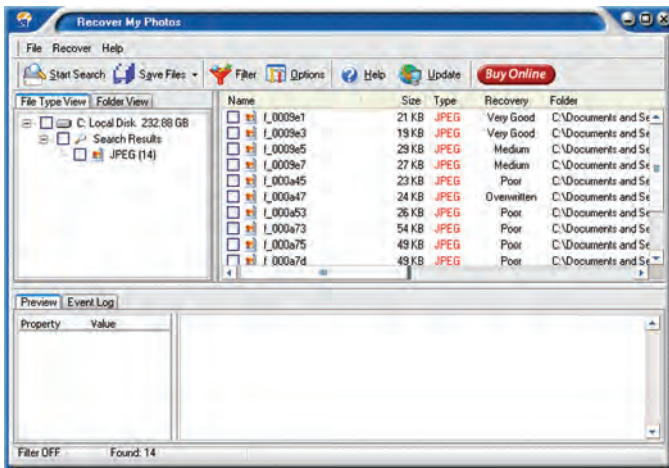
Recover My Photos is a program you can use to recover accidently deleted photos from your SD card.

The following are some examples of recovery programs you might consider. All have free trial versions that you can download and determine if the program can recover your missing images.

❖ Card Recovery (www.cardrecovery.com/)

❖ Photorescue Wizard (www.datarescue.com/)

❖ Recover My Photos (www.recovermyphotos.com)

❖ Fresh Crop Software & Services (www.freshcrop.com)

❖ Image Recall Don't Panic - Photo Edition (www.imagerecall.com)

Removing Dust Spots

Some spots on your photos may be the result of setting the ISO too high but these spots are typically in the shadows and darker areas of the photo. So, if you're seeing dark points or spots in brighter areas of your photos, it's possible that you have dust inside your camera.

It's probably best to prevent dust from getting inside your camera in the first place. Although the sensor cleaning does remove a lot of the dust inside your camera, it cannot remove all of it.

One common way for dust to sneak into your camera is when you change lenses. Therefore, before you change the lens, make certain to turn off the camera power. Then always change lenses with the body pointed toward the floor or ground (regardless of how clean you think your house is, dust can still find its way inside your camera).

You can also have the camera do a manual sensor cleaning that is similar to the sensor cleaning the camera does when you shut it off.

❖ Press the MENU button

❖ Press right cross key to the second brown color coded Tools tab.

❖ Press the down cross key to Sensor cleaning

❖ Press Set

❖ Press either [Cancel] or [OK] to continue. You'll have to turn off the camera after performing the Sensor cleaning.

Storing Your Camera

You don't want to have your camera just lying around on a table or desk where it could be damaged. Instead, keep the following suggestions in mind:

❖ Store your camera correctly, such as in a secure camera bag, if you won't be using it for a long time.

❖ Store it properly away from humid, dusty or dirty places.

❖ Keep your camera dry and free from condensation.

❖ Don't subject it to extreme hot or cold temperatures.

❖ Keep it out of direct sunlight for prolonged times or inside a car when it is hot.

Handling

❖ Use a clear protective filter over the lens to protect the front element from scratches. A filter also makes cleaning the camera easier and safer..

❖ Be careful when handling your camera. This is especially true when passing your camera to friends so they can see your photos in the LCD monitor. According to a survey by *PC Photo* magazine, this is when a camera is most likely to be dropped.

❖ Turn off the camera before removing or disconnecting the power source or a cable, or removing the battery or memory card.

❖ Do not subject your camera to knocks, vibration, magnetic fields, smoke, water, steam, sand or chemicals.

❖ Don't subject it to extreme hot or cold temperatures.

❖ Keep it out of direct sunlight for prolonged times or inside a car when it is hot.

❖ Be careful around water — if you drop it in water, the camera may be damaged beyond repair.

Photographer's Checklist

Is The Battery Charged?

Your T2i depends on its battery for power so if your camera runs out of power, or is even low on power, you may find yourself missing some great photo opportunities. Therefore, you should get into the habit of checking the battery power after each time you use your camera. The camera then will be ready the next time a great photo opportunity arises. It's also not a bad idea to keep an extra battery in your camera bag (make sure it's charged, too) in case you lose or cannot charge the first battery.

You can check the level of power in the battery anytime by turning on your camera and looking at the LCD monitor. Look for the battery icon similar to the image on the right.

Format Your Memory Card

Unless you're using a CF card or memory card with a very large capacity, it's a good idea to format your card before going out to snap your photos. Make certain though that you've safely transferred any photos you want to keep BEFORE formatting the card because you'll lose everything on the card.

Check The Camera Settings

You may have changed some of the camera settings the last time you used the camera, for example, ISO, white balance, exposure compensation, etc.

Therefore, make certain to have the right settings appropriate to the conditions you're shooting. For example, you may have used Tungsten light for the white balance setting the last time you used the camera. That setting, however, probably won't work so well outdoors on a bright sunny day. Therefore, it's best to check the various settings before you start shooting.

Zooming In On Clearing Custom Settings

Don't forget to clear or change any settings to your T2i that you have made before your next photo opportunity.

You can do this easily by following these steps:

❖ Press the MENU button.

❖ Press the right cross key to highlight the third Tool icon.

❖ Press the SET button

❖ Press the up cross key to select "Clear all camera settings"

❖ Press the SET button

❖ Press the right cross key only if you want to confirm that you want to clear the camera settings.

❖ Press the SET button.

This will return the T2i to the original settings, for example, ISO, exposure, etc.

What To Have Handy In Your Camera Bag

Some of the items you should have handy in your camera bag may be obvious but sometimes the obvious is what we overlook the most. Therefore, we're including the following checklist of items for you to have in your camera bag.

Battery charger
This is a necessary item for you to have in your camera bag. A good habit to begin developing is to charge your battery after each day of shooting. You cannot do that without having the battery charger in your camera bag. Also, don't forget a battery charger for an external flash, too.

Bug Repellent
Whether you should keep a can of bug repellent in your camera bag may depend on where you live and when you're shooting. If you like to shoot landscapes near a river or in the woods during the summer months, you should consider carrying some bug repellent.

Cable release
You may discover a cable release to be important when you're shooting nighttime shots or other shots that require long exposures.

Camera
There isn't much point going on a photoshoot if you don't keep your camera safely secured in a camera bag.

External flash
If you have an external flash, there isn't a reason not to have it in your camera bag, depending on what you're planning to photograph. Also don't forget to take a long a spare set of batteries for the external flash.

Extra lenses
The best place to store extra lenses is securely in the camera bag. This will help protect the lenses but you'll also know where they are located.

Extra filters
As with extra lenses, the best place to store extra filters is securely in the camera bag. This will not only protect the filters but you'll also know where they are located.

Facial tissue
You may discover facial tissues to be quite useful on a photoshoot from cleaning the camera to using as a diffuser to keeping your hands clean.

USB cables
Although inexpensive, USB cables (for transferring your photos to your computer) are easy to lose. Therefore, a great place to store these cables is in your camera bag.

Garbage bags
You can use a large garbage bag to sit on or kneel on when you're shooting low to the ground.

Cleaning materials
This will include a lens cleaning cloth (a micro fiber cloth requiring no liquid is best), lens cleaning fluid and lens tissue.

Lightweight tripod or monopod
Although perhaps too large to fit inside a camera bag (useful for shots using a timer)

Notebook, paper and pen/pencil
A small notebook with a pen is good to have for taking notes on shooting locations, settings, time, etc.

Plastic bags
These are very useful to protect your camera and lenses in the event of bad weather.

Small roll of duct tape
Duct tape is a handy thing to include especially if your photoshoot is out in the middle of nowhere. You should also include a small pair of scissors to cut the duct tape if needed.

Spare car key
A spare car key is an often overlooked item to include in a camera bag. However, you may lock your keys in the car or, worse, lose your car keys on a landscape photoshoot.

Spare lens cap
A lens cap is so easy to misplace or lose on a photoshoot. It's always a good idea to have at least one spare lens cap in your camera bag.

Sunscreen
This suggestion is similar to the bug repellent; it may depend on where you live and when you're shooting. If you're planning a long photoshoot outdoors on a bright sunny day, definitely consider carrying a container of sunscreen in your camera bag.

Extra memory cards
You might not think you could ever fill the memory card since you can delete or transfer all the photos. However, did you consider that you might lose a memory card or somehow damage it? This is why it's important to keep a second memory card in the camera bag.

Wrist strap or neck strap for the camera
Double-check the neck strap on your camera often to make certain it's secured correctly to the camera.

GLOSSARY

Glossary

Aberration

The inability of a lens to produce a perfect, sharp image, especially at the edge of the photo.

Ambient Light

The existing light in an indoor or outdoor setting that you do not provide.

Aperture

The opening in a camera lens through which light passes. The aperture size is usually calibrated in f-numbers; the larger the f-number, the smaller the lens opening (and the slower the shutter must be).

Artificial light

Any light such as a flash that isn't coming from a natural source.

Backlighting

This is a light source that appears from behind the subject, and towards the camera lens, so that the subject stands out against the background.

Cable release

This is a flexible cable for firing a camera shutter. You should consider a cable release when shooting long exposures or in other situations where touching the shutter button might cause camera-shake and result in a blurry photo.

Center Weighted

Refers to a camera metering system that concentrates the light reading mostly to the central portion of the viewfinder and feathering out to the edges.

Chromatic Aberration

This occurs when the lens cannot focus different colors on the same focal plane. Chromatic aberrations appear as a color fringe around objects, especially at the edges of the photo.

Color cast

This is an overall bias towards one color in a color photo.

Depth of field

This is the distance between the nearest and farthest objects that appear in acceptably sharp focus in a photograph. Depth of field depends on the lens aperture, the focal length of the lens, and the distance from the subject.

Depth of focus

This is the very narrow zone on the image side of the lens within which slight variations in the position of the film will make no appreciable difference to the focusing of the image.

Diffuse Lighting

Any lighting that is low or moderate in contrast; an overcast day is a good example.

Existing Light

This refers to all light that is available including natural lighting and any artificial lighting such as lamps, candles, daylight through windows, etc.

Exposure

This is the amount of light allowed to enter your camera. The aperture controls the amount of light and the shutter speed controls the time.

Exposure compensation

You may need to change the exposure from the value suggested by the camera to get a better photo. To do this, you need to press the exposure compensation button [+/-] on your camera. Set a positive compensation when the main subject is darker than the background or a negative compensation when the subject lighter than the background.

f -stop

The number that indicates the size of the lens opening is called the f/stop. Examples of f-numbers on your Canon camera are f1.4, f2, f2.8, f4, f5.6, f8, f11, f16 and f22. The larger the f-number means a smaller lens opening, so an f/22 will have the smallest lens opening in this example. The f/stops work with shutter speeds to indicate exposure settings.

Fill-in light

Light from any additional lamp, flash, or reflector is fill-in light or fill-in flash when flash is used. Photographers use fill-in light to soften or "fill in" the shadows caused by the brighter main light source, such as the sun.

Focal length

Focal length is the distance between the film plane and the focal point (optical center of the lens) when the lens is focused at infinity. The focal length of the lens is marked in millimetres on the lens mount. The principal focal point is the position of best focus for infinity. There are two principal focal points, if a lens is turned around a second focus is obtained. 'Reversed' lenses are often used in close-up Macrophotography because using a lens reversed allows a closer focusing distance.

Hood

A tube, usually made of metal or rubber, that prevents unwanted light from falling on the lens surface.

Infinity

Although it at first may seem like an astronomical term, infinity in photography refers to the focusing point at which the lens gives a sharp image of very distant objects, such as the far horizon.

ISO (International Standards Organization)

ISO is the speed rating for photographic materials and is based on a mathematical progression so ISO 200 is twice as fast as ISO 100 but only half as fast as ISO 400.

Macro lens

This lens provides continuous focusing from infinity to extreme close-ups. You can also use macro lenses at ordinary subject distances

Neutral density filter

This is a neutral gray camera filter that you can use to reduce the amount of light entering the camera when a slow shutter speed or wide aperture is needed.

Over exposed

This occurs when too much light reaches the camera. The resulting photo is either overall too light or is too light in different areas.

Panning

This is a technique for photographing a moving subject. While the shutter is open, the camera moves to follow the moving subject. Although panning creates a blurred background, it does produce a sharp subject. Panning generally works better with slower shutter speeds.

RAW

As its name suggests, this is an unprocessed digital file direct from your camera. Raw is not a standard file format such as JPEG but typically created by the manufacturer specifically for their cameras.

Shutter speed

The time in which the shutter stays open to light is called the shutter speed. It's measured in fractions of seconds so that speed setting of 1/4000 means 1/4000th a second, which is very fast, and a setting of 30" means 30 seconds, which is very slow.

Stop down This refers to when you change the lens aperture to a smaller opening, such as from f/4 to f/5.6. When you stop-down you're also increasing the depth of field.

Under exposed

This occurs when not enough light reaches the camera. The resulting photo is either overall too dark (muddy looking) or is too dark in different areas.

White Balance

An otherwise good photo, depending on the lighting conditions, may appear slightly yellow or blue. To prevent this problem, you may need to adjust the white balance control settings on your camera.

* **Avoiding Out Of Focus Photos**
* **Fixing Dark Photos**
* **Taking Action Photos**
* **Better Flash Photos**
* **Fixing Washed Out Photos**
* **Amazing Nighttime Photos**
....and much more!

Solve common shooting problems and capture the best photos with your Canon T2i / 550D.

70

Fixing Photos That Are Too Dark

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Faces Are Dark Due To Backlighting

The pool and water in the background look great in my pool photo but the face is a little dark. How can I lighten her face yet keep the background looking great?

Mode: Full Auto   Exposure: 1/320
Aperture: f-10   ISO: 100
Metering: Default metering evaluative

Mode: P (Programmed Auto AE)
Exposure: 1/50   Aperture: f-8.0
ISO: 200   Metering: Spot Meter (on face)

The sky, grass and trees in this photo look great but the faces are a little dark. You'll need to change the metering mode of your camera to overcome this common problem.

By switching the metering mode to partial metering, we've lightened our subject's faces.

Before

After

To lighten the subject's face, you can change the metering mode to take the light falling on the subject's face into greater consideration.

tay Focused Guide Canon T2i

Fixing Photos That Are Too Dark

Turn the Mode Dial to P (Program AE Zone). **(1)**

Press the ☐ (Quick Control) button to open the Quick Control screen. **(2)**

Press the ⊚ right crosskey to select Metering **(3)** and press SET.

Press the ⊚ right crosskey to select Partial Metering **(4)** and press SET.

Compose the picture by placing the central part of the viewfinder over the subject's face.

Press the shutter button halfway.

If the subject's face is not directly in the central part of the viewfinder, press the AE Lock button **(6)** to lock the and then recompose the pi

Press the shutt
the picture

Note

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