

Text and Photos by Jack & Sue Drafahl

10 EASY Flash Solutions

Ever since Dr. Edgerton invented the electronic flash, it

has become an invaluable tool in photography. If you have a camera, chances are that you probably have a flash. It has become such an integral part of photography that most shooters take their electronic flashes for granted. The flash allows you to literally freeze action or capture a fleeting moment in time in a photo, or just helps you light up the world. Fortunately, with today's flash systems, the TTL control does all the exposure calculations for you. Here are a few tips on how to use your electronic flash more effectively.

Using the Flash for Sidelighting

Dramatic lighting can be produced by moving the flash off-camera. This is usually done with a special TTL sync cord available from your flash manufacturer. If you want the flash as the dominant light source, and the sunlight second, you will have to set the flash compensation to $+\frac{1}{2}$ or $+\frac{2}{3}$ stop. The camera itself is then set to either $-\frac{1}{2}$ or $-\frac{2}{3}$ stop exposure. This will bring the overall exposure down to the correct level. Bracketing of lighting ratio is accomplished by changing the distance of the flash from the subject.

Backlighting



An interesting application is to move the flash opposite the camera lens and point it directly into the front of the lens. This works best when using a macro lens and a small subject between the lens and flash. Care must be taken to align the subject and flash so that the flash does not flare into the front lens element. Since the size of the aperture is critical to this alignment, you must preview the image using the stop-down mode (depth-of-field preview) before you shoot the picture. If you want detail on the front of the subject, you can add a second flash and use it as a macro flash-fill. The ratio between these two flashes can be varied in the TTL mode by changing the distance from each flash to the subject.

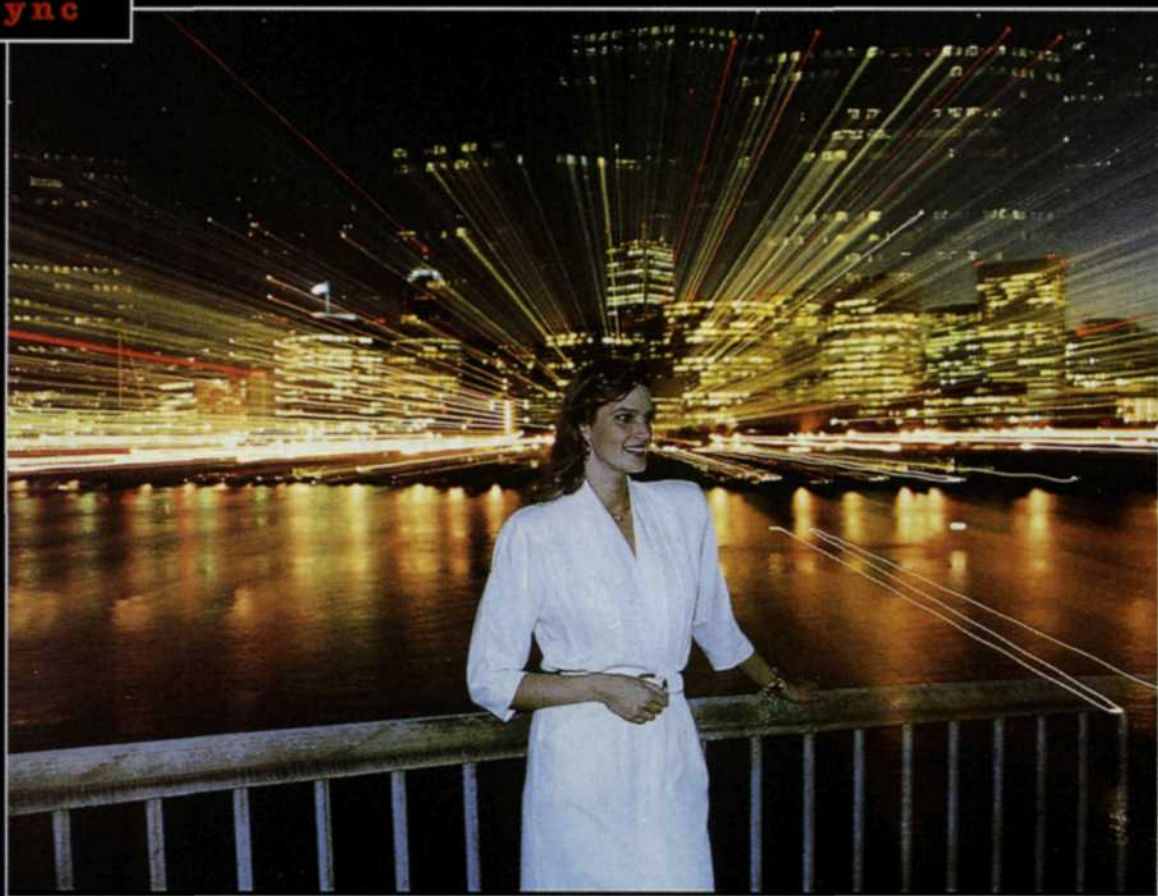


Controlling Lighting Ratios with two Electronic Flashes

Utilizing multiple flashes is an effective way to dramatize tabletop setups. Two flash units are required for direct lighting. One flash is set close to the camera, while the second is used as a side light, top light, or back light. Gels can be added to the second flash to enhance the overall look of the scene. Lighting ratios in the TTL mode can be accomplished by changing the distance of the two flash units from the subject. Bracketing your exposure is highly recommended.

Using Rear-Curtain Flash Sync

Some of the more sophisticated flash units provide rear-curtain sync. When the flash is set to this mode, it forces the camera to balance the exposure with available light even if the shutter speed is below flash sync, and it fires the flash at the end of the exposure rather than at the beginning. Creative night shots with a zoom lens are perfect examples of this application. To create these, mount the camera on a tripod, then frame and focus on the model that will be lit by the flash. Stop the lens down until a 5–10-second exposure is indicated. When the shutter opens, zoom the lens from telephoto to wide-angle. At the end of the exposure the flash fires, lights the model and completes the exposure.



Bounce Flash for Softer Lighting

Direct flash is sometimes harsh and can create shadows in your pictures. One approach to obtaining softer lighting is to bounce your flash off a reflective surface. If you are in a room with a white ceiling or white wall, you can use either surface as a soft reflector for your flash. Turn the flash head so that it points toward the reflecting surface, open your aperture two more stops more than you would when using direct flash, and fire the shutter. Watch the TTL indicator on the flash. If it indicates underexposure, open up the aperture even more. If the wall or ceiling is too far from the flash, these surfaces may not reflect enough light for proper exposure. Be aware that any colored surface will reflect that color onto that subject, and the resulting image will be off-color. Generally, cream-colored or warm-colored off-white surfaces will give the picture a warm tone. If you have two flash units, you can bounce them off two walls, one wall and the ceiling, or any combination to get even softer lighting.

Mixed Lighting—Large Room Flash-Fill

Flash-filling a large scene is possible, even when there are several light sources with different color temperatures. In this case a



large room at Vatuale Resort in Fiji had full sunlight coming through one door, cool shade light through another, and tungsten light from overhead. Since the room was so large, two flash units were attached to the camera and both were set in the flash-fill mode with a compensation of $-\frac{1}{2}$ stop. An overall bracket of the scene guaranteed the best exposure.

Using the Short Duration of Close-Up Flash to Stop Action

A unique aspect of TTL flash is that as the flash gets closer and closer to the subject, the sensor on the flash shuts the flash down faster and faster. When the flash is brought to its closest distance, the flash duration is approximately $\frac{1}{10000}$ second. This feature is especially useful when photographing insects. Since insect photography usually requires a macro lens, and insects rarely stand still, even a standard flash duration of $\frac{1}{1000}$ will slightly blur. The solution is to put the flash on TTL and move it as close to the insect as possible. This will shorten the flash duration and give you a much sharper image.

You can also use this flash feature to capture very high-speed action. Milk or water drops can be frozen in time with a simple electronic trip system that fires the flash just as the drop hits a surface. The room is kept dark and the shutter is held open on Bulb or Time. When a drop falls through the sensor, it sends a signal to the flash, and by the time it fires, the drop is in the shooting area. The setup requires some experimenting, but the resulting images are always unique.

When you set the flash to stroboscopic function, it uses the same high-speed electronics to fire continuously for a specified period of time. This control is operated manually so you can set the number of flashes to be fired. The time interval between each flash, and each flash's power output. This function is best used on subjects that move through a scene, because it can record the subject at various intervals of movement. Mid-tone to dark backgrounds work the best, and a tripod is a must.



Flash

(Continued from page 31)

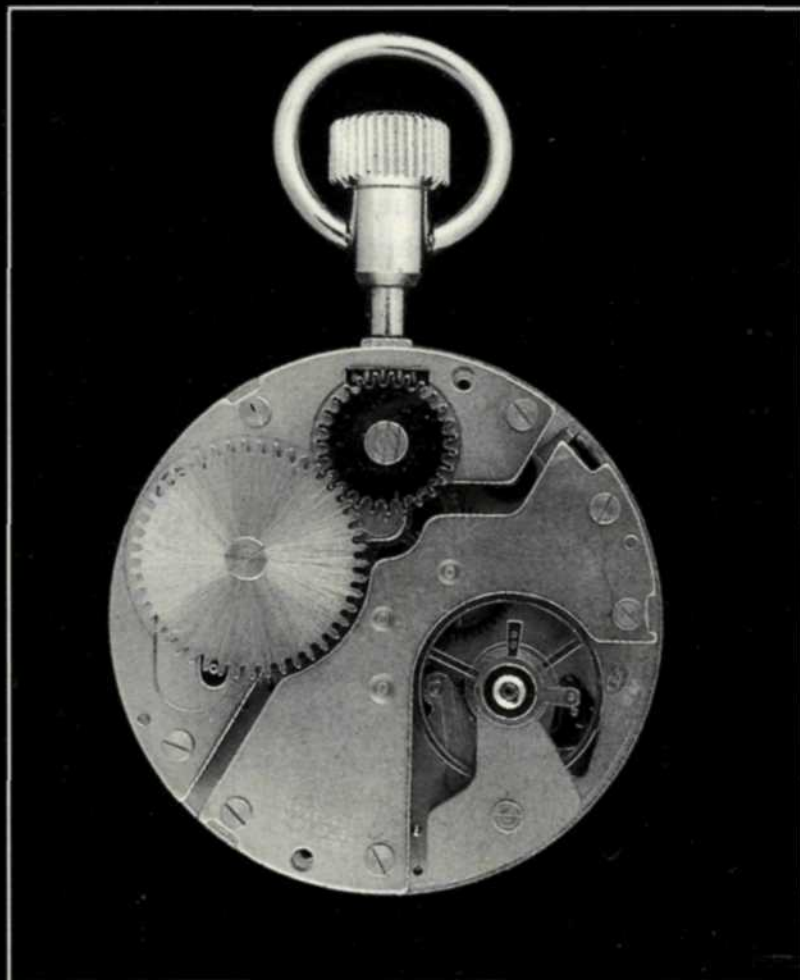
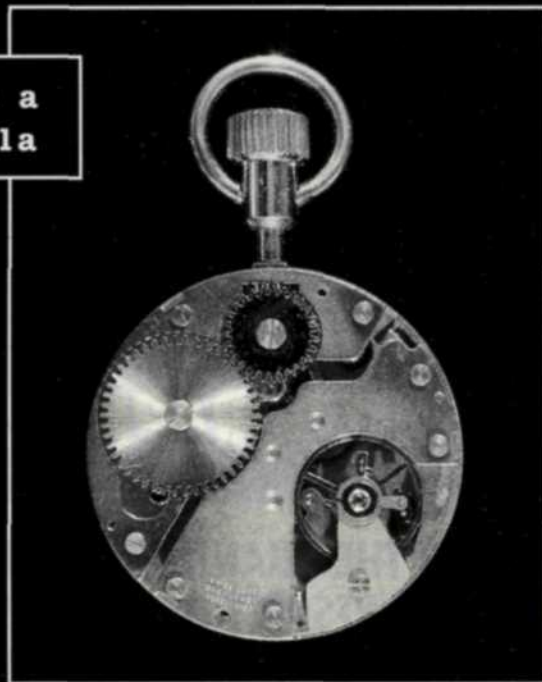
Using the Flash in a Softbox or Umbrella

Another method of controlling reflected strobe lighting is using studio umbrellas or softboxes. Most studio photography is best accomplished when using these tools because the results are repeatable. These studio accessories are designed for minimal light loss, usually a couple of f-stops.

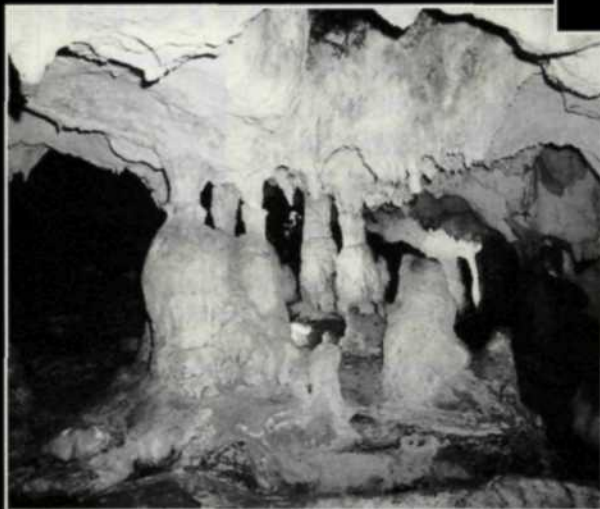
If you use more than one umbrella, make sure they are of the same type, as different brands give off slightly different color balances.

Softboxes work great for small parts, jewelry, and highly reflective pieces. Some of the most difficult photography is of reflective parts. It is as if you are photographing a mirror.

The product reflects everything in the room. The trick is to make the room white, and confined. The best solution is what we call a "tent." The concept is very much like a softbox, except that the subject is in the box and the flash is on the outside. The camera usually shoots through a small hole in the side.



Multiple Flash



Total lighting control can be accomplished by using more than one flash. If the scene is large and sync cords are out of the question, then a slave flash is the solution. Cave photography is a good example of a situation where this is necessary. The main flash trigger is mounted on the camera and one or two slaved flash units are placed in the scene in order to spread the light evenly. If you have to place the slave flashes in the camera's view, make sure that they are pointed at an angle away from the lens. This will minimize lens flare. Placing the slave flash out of view will require a couple of test firings to make sure the slave sensors react to the main flash. If it does not fire, keep changing the angle of the slave, until it picks up a bounce reflection from the main flash. In most cases this will be a manual exposure, so bracket, bracket, and when all else fails, bracket.

Flash-fill for Better Portraits

Shooting portraits outdoors can result in contrasty scenes with harsh shadows. When the flash is used to fill-in the shadows, it must be controlled so that it does not overpower the scene. On most flash units today you bias the output of the flash so that it has less output than with direct flash. In most cases $-1/3$ to $-2/3$ gives the best ratio. If you use the Auto mode on your camera, you will have to adjust the aperture until your shutter-speed setting is within the flash sync range (generally $1/60$ – $1/250$). Shutter-priority users will have to turn the aperture until the exposure bar inside the camera tells you that you are within an acceptable exposure range. Program mode only requires adjusting the flash. You should bracket your main camera exposure the first time you try flash-fill. Some cameras tend to overexpose when used in a flash-fill capacity.



As you can see, your electronic flash is not just for sitting on top of your camera. Electronic flash offers versatility and variety to your pictures. Put a little flash in your life! ■