

THE BEST OF

The

Digital Photography

Book Series

The step-by-step
secrets for how to
make your photos
look like the pros'!



Scott Kelby

Author of the top-selling digital photography
book ever—*The Digital Photography Book*, part 1

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Digital Photography
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*This book is dedicated to my friend and colleague
Kleber Stephenson, for always being willing to come to our rescue;
for being “all in” in everything you do; and for
putting up with me, and my decisions, even when
you knew they weren’t always right.
You rock, dude!*



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Other Books by Scott Kelby

The Adobe Photoshop Lightroom Book for Digital Photographers

*Professional Portrait Retouching Techniques for Photographers
Using Photoshop*

The Digital Photography Book, parts 1, 2, 3, 4 & 5

*Light It, Shoot It, Retouch It: Learn Step by Step How to Go from
Empty Studio to Finished Image*

The Adobe Photoshop Book for Digital Photographers

The Photoshop Elements Book for Digital Photographers

It's a Jesus Thing: The Book for Wanna Be-lievers

Photoshop for Lightroom Users

Professional Sports Photography Workflow



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Scott is a photographer, designer, and an award-winning author of more than 60 books, including *The Digital Photography Book*, parts 1, 2, 3, 4 & 5, *The Adobe Photoshop Book for Digital Photographers*, *Professional Portrait Retouching Techniques for Photographers Using Photoshop*, *The Adobe Photoshop Lightroom Book for Digital Photographers*, and *Light It, Shoot It, Retouch It: Learn Step by Step How to Go from Empty Studio to Finished Image*. The first book in this series, *The Digital Photography Book*, part 1, has become the top-selling book on digital photography in history.

For the past five years, Scott has been honored with the distinction of being the #1 best-selling author of photography techniques books. His books have been translated into dozens of different languages, including Chinese, Russian, Spanish, Korean, Polish, Taiwanese, French, German, Italian, Japanese, Dutch, Swedish, Turkish, and Portuguese, among others.

Scott is Training Director for the Adobe Photoshop Seminar Tour, and Conference Technical Chair for the Photoshop World Conference & Expo. He is also the founder of Scott Kelby's Annual Worldwide Photowalk, the largest global social event for photographers, which brings tens of thousands of photographers together on one day each year to shoot in over a thousand cities worldwide.

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SHUTTER SPEED: 1/200 SEC F-STOP: F/8

ISO: 200 FOCAL LENGTH: 116mm

PHOTOGRAPHER: SCOTT KELBY

Chapter Four

Using Your Studio Like a Pro

*Build It From Scratch,
Then Take It Up a Notch.*

Back in part 2 of this book series, I showed you how, using just a simple, thin piece of plastic that fits easily in your wallet, you can completely and fully outfit a one-light studio from scratch. Well, after I wrote that chapter, people who read it wrote me and asked some really thought-provoking and soul-searching questions like, “What if we want to use two lights?” or “What if we want to add a second light?” and even “What if we have one light, but think we might need another?” I’m not gonna lie to you. I was pretty freaked out. I thought we covered so much in part 2 that there was no way anyone would want to learn more, so when I originally wrote the outline for part 3, not only did I not have a chapter on more studio techniques, I specifically didn’t mention the word studio, or techniques, or use any words with either an “s” or “t” in them, just in case. But then I realized writing a book without an “s” or “t” in it would preclude me from using my first name, and if that happened, I wouldn’t be able to refer to myself in the third person (like, “Scott doesn’t want to share more studio techniques” or “Scott made bail”). So, I really had to revisit the whole concept with a fresh set of eyes, and once I did, I realized that not only would I have to include a studio chapter that picked up where part 2 left off, but I would actually have to rebuild my original studio from scratch, because after part 2 was complete, and the chapter was done, I built a huge bonfire and destroyed all my gear. That’s how “done” I thought I was with studio techniques, but apparently, that’s not the case. Scott doesn’t like to have to rebuild everything. Scott doesn’t like to pull out the thin piece of plastic from his wallet. Scott needs a second job.



Using Studio Flash (Called Strobes)



A lot of people are intimidated by studio lighting, thinking it's complicated or too technical for them, but in reality, most studio lights are just bigger versions of the hot shoe flash you're already used to using off-camera (in fact, they are flashes, but in the industry they're usually called "studio strobes" or just "strobes"). The main differences between hot shoe flashes (like a Nikon Speedlight or a Canon Speedlite) and studio strobes are: (1) studio strobes usually plug into the wall rather than running on batteries; (2) studio strobes are much more powerful (they put out a lot more light) than the hot shoe flashes; (3) they have a modeling light; (4) they're designed to have lighting accessories, like softboxes, attached right to the front of them; and, (5) since they're designed to be mounted on top of a light stand, they have a light stand mount right on the bottom of the strobe itself (to mount a hot shoe flash on a light stand, you usually will need some sort of separate adapter or swivel head).



USING CONTINUOUS LIGHT INSTEAD

An alternative to studio strobes is continuous lights. With these lights, there is no "flash of light"—instead, the lights just stay on continuously. This makes studio lighting incredibly easy, because what you see is what you get. They're naturally softer than studio strobes, but still need a softbox attached. A speed ring is built right in, though, and they're fairly inexpensive. There's one downside: since there's no flash to freeze things, things need to be fairly still, because the fluorescent lights aren't as bright as the light from a strobe.



What to Do When You Can't Turn Your Strobe Power Down Any Further



The bigger the softbox, the softer and more beautiful the light. But what if you want even softer light? Well, the trick is to move that light as close as possible to your subject (without it actually appearing in the frame), because the closer the light, the bigger it becomes, which makes it even softer and more beautiful. One other thing happens when you move a light in this close: it gets much brighter. So, as you move the light closer to your subject, you'll need to lower the power of your strobe so it's not so bright, right? Right. Now, what happens when you've lowered the power of your strobe as low as it can go, and it's still too bright? When this happens, just raise your f-stop. That's right. If you were at f/8, raise it to f/11. If you started at f/11, raise it to f/14. This cuts the amount of light falling on your subject, so you get the best of both worlds—you're still getting super-soft light by moving it close to your subject, but you're not blowing them out with too much light because it's so close. You might even need to increase your f-stop by two stops or more, but if that's the case, don't sweat it—just do it.



WHY I PREFER SOFTBOXES TO UMBRELLAS

With a softbox your light is pretty much contained within a box—you aim it in a direction and it pretty much goes right there. But with an umbrella, you have less control over what happens once the light leaves your umbrella. I think of it more like a lighting grenade—you throw it in the general direction of what you're trying to light, and it'll probably light it. So, while an umbrella does take the harsh light from your strobe and create soft, pretty light from it, it kind of goes everywhere. Whereas, a softbox is more directional.



Firing Your Studio Strobe Wirelessly



Besides avoiding the potential for broken glass (well, broken everything actually), there's another thing using a wireless flash setup gives you—freedom. You're no longer tied (well, actually tethered) to your strobe. You're free to move around the studio, completely untethered, unencumbered, unfettered (insert your own “un” word here), without being on a leash (so to speak). Now, many current models of studio strobes have built-in receivers and come with triggers that let you fire the light wirelessly from your camera, but if you have a strobe that doesn't have this, then you'll need two of these wireless devices—one sits on the top of your camera (in your camera's hot shoe) and transmits the wireless signal to the other wireless unit, which plugs into the sync input on your strobe. What I love about them is you just plug them in, turn them on, and they do their thing. There's no real configuring or messing around for this simple setup. Now when you press your shutter button, it instantly fires your strobe, even if it's across the room (even way across the room). The most popular wireless units are from a company called PocketWizard, and their PocketWizard PlusX is a small, thin, lightweight model of simplicity that is incredibly reliable and very well made. They go for around \$85 each (and you need two of them, so \$170 for the set). They also make more expensive units with more features and stuff, but at this point, you don't need 'em). If you want a cheaper alternative, go with the Cactus Flash Transceiver V5 Duo. They're a bargain at around \$75 for a set of two (so, \$37.50 each), and they actually work really well. Perhaps they're not quite as rock-solid as the PocketWizard, and they may not have the 300+ foot range of a PocketWizard, but they're pretty darn reliable and about \$95 cheaper.



Softening Harsh Studio Strobes



So, if the light from your regular off-camera flash is harsh, imagine how harsh the light will be from a brighter, more powerful flash (your studio strobe). Right, it's harsh city. To diffuse that light and make it softer, you have to make the light that comes from your strobe larger, because the rule is: the larger the light source, the softer the light. So, we have to put something big between our studio strobe and our subject to spread and soften that light, and for that I recommend a softbox. They're aptly named because they soften the light from your strobe big time, and they are very popular with professional studio photographers (in fact, it's the softening device of choice for most top pros). They fit right over your studio strobe (they have a hole in one end) and your flash fires through the white diffusion material at the large end of the softbox. This spreads the light, so when it hits your subject, it's a bigger source of light, and that means it's a much more flattering, softer light. But this softer light isn't just for lighting people—even if your subject is a product, you still want nice, soft shadows throughout your image, and a softbox is your key to getting just that.

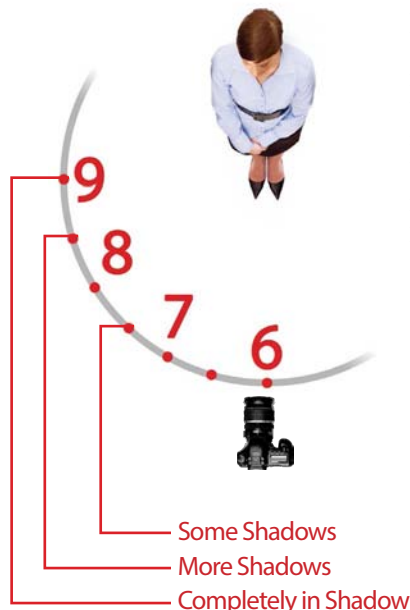


WHAT A SPEED RING DOES (8 WHY YOU NEED IT)

A speed ring has four to eight holes on the edge where you insert the ends of the thin metal poles of your softbox. This gives your softbox its form, and you attach this whole rig (the speed ring with your softbox attached) to your strobe. If your softboxes don't come with one built in, make sure you get one designed to fit your brand of strobe.



Where to Position Your Main Light



Your strobe should be up high on a light stand, aiming down at an angle (kind of like the sun aims down on us), so it creates a more flattering look to our light. Also, keep in mind that the closer the light is to your subject, the softer the light is. Now, there is no absolute “right” place to position your lights, so it really comes down to your personal preference about how you want the shadows to look on your subject. Shadows are what create depth and dimension on a person’s face (and having soft shadows on your subject’s face is usually very flattering), so I usually position my main light so it’s at a 45° angle to the subject. So, for example, if your subject was standing at the center of a clock face, and the camera is straight in front of them at 6:00, then you’d place the light at around 7:30. This creates some nice soft shadows on the side of their face that’s farthest away from the light (the side opposite the light). If you want more shadows on that side of their face, you’d move the light to around 8:00. Want more shadows? Move it to 8:30. Want that whole side of their face totally in shadow (often seen in dramatic portraits of men)? Put the light right beside them at 9:00. Okay, what if you actually want less shadows on that opposite side of their face—maybe just a hint of shadows? Then, move the light closer to the camera position—to around 7:00. If you move the light right in front of the subject, their whole face will be lit evenly with no shadows on their face. This is “flat lighting” and it usually looks okay on someone with really good skin. Okay, so which one of these positions is the “right” position? The one you choose—it’s totally up to your personal preference (my preference has me positioning my light at between 7:30 and 8:00 most of the time).



Adding a Hair Light



Thinking of adding a second light to your studio? It should probably be a hair light. This is just another strobe, but it's generally aimed directly at your subject's hair (did I even have to say that?), which helps to separate your subject from the background and give your portraits a more professional look all around. For lighting hair these days, we generally use a strip bank, which helps keep the light more directional (and lights just the hair and/or shoulders, instead of spilling over everywhere). Mine is 12x36". Also, I usually set my strobe's power for the hair light so it's around one stop brighter than my front light, so the light from my front light doesn't overpower it. A trick for checking the position of your hair light, to make sure none of the light from it is spilling onto your subject's face, is to turn off your main strobe (your front light), so nothing but the hair light is turned on. Your subject should be in complete silhouette, with no light on their nose, cheeks, or face whatsoever. If you see any light now, you'll need to reposition your hair light (maybe move it back a little bit, or to the side), until you only see light on their head and shoulders—none on the face. By doing a test shot with just one light on at a time, you'll see exactly what each one is doing. If you turn them all on from the beginning, the lighting won't look good, but you won't have any idea why. So, always start with just one light (I always do any back lights first), and then add another light, one at a time. If something doesn't look right when you add another light, turn the other lights off, adjust the one that didn't look right, then turn them on again, one at a time. Probably the most popular accessory for hair lights is an egg crate grid. This is a fabric grid that Velcros (or slips, depending on the brand) over the front of your strip bank. It narrowly focuses the light from your hair light so it doesn't spill out the sides, and it really does a wonderful job of focusing your light just where you want it. They come in different sizes, and there's one to match the exact size and shape of your strip light.



Getting a Different Look Without Moving the Lights



Once you've got your lights in place and you've got that first shot in the bag, try this: Don't move the lights. Don't move your subject. Instead, leave everything as is and move the photographer (kudos to Jeremy Cowart for this tip). If you were standing right in front of the subject, just move way over to one side or the other and take the shot again. You'll be amazed at how moving two or three feet in either direction can completely change the look of the lighting, even if you haven't touched a single light. Give this a try and you'll wind up with two or three lighting looks out of just one lighting setup.



CHOOSING THE SIZE FOR YOUR SOFTBOX

There are a couple of considerations: what are you planning to shoot, and how soft do you want your light? If you're shooting product shots on a table, you can get away with a smaller softbox, yet it would still be big enough for head-and-shoulders portraits. If you're shooting people, and doing more than just head-and-shoulder-type stuff, then you'll need to go with a larger softbox. The larger the light source, the softer the light, so if you buy a very large softbox, you're going to get very soft light, and you're going to be able to light a larger area.



Want Softer, More Even Light? Feather It!



If you're already using a large softbox (one that's around 36x48" or larger), and you want softer, more even light than it delivers, then you can use a technique called feathering, which puts your subject in the softest and most even light your softbox can deliver. Feathering just means that you turn the light away from your subject, so they are now lit by just the edges of the light. They won't be getting the full intensity of the light when you feather it, so you might have to adjust your exposure so it's not too dark (use a lower number f-stop on your lens—like f/4 or f/3.5, etc.—or better yet, use your light meter and it will tell you exactly which settings to use when feathering your light). This light out at the edges of your softbox is very even, very soft, and very flattering (since the light in the center of the softbox is usually brighter and less even), so when you really need that super-soft, even light—now you know where to get it. This technique looks great on portraits of young children, a mother/daughter shot, or when you want a very soft, glamorous look to your lighting.



Studio Backgrounds



One of the least expensive, and most popular, studio backgrounds is seamless paper. This paper comes in long rolls, and the two most popular widths are just over 4 feet wide (53") and nearly 9 feet wide (107"). The nice things about seamless paper are: (1) It's cheap. A 53-inch-wide white roll that's 12 yards long goes for around \$25 (at B&H Photo), and if you want the 9-foot-wide roll, it's only around \$45. (2) It's seamless. There's no visible seam where the paper folds as it reaches the floor (or a tabletop), so the background looks continuous. (3) The stands to support seamless paper backgrounds are pretty cheap, too. For example, the Savage Economy Background Stand Support System, which supports both the 53" and 107" rolls, only costs around \$79. That ain't bad. And, (4) this paper comes in a wide variety of colors, from solid white to solid black, to blue, green, and everything in between (hey, that rhymes). If you're building your first studio, this is a great way to start, because you can get your background and the supports to hold it up for around \$100.



SO WHICH SHOULD I GET, THE 53" OR THE 107" SEAMLESS?

If you're planning on shooting products on a table, or strictly just head-and-shoulder shots of people, you can get away with the 53" width. If you need to see more of your subjects, go with the 107".



Using a Pop-Up Collapsible Background



COURTESY OF WESTCOTT

Another quick and flexible studio background is a pop-up collapsible background that instantly folds up into a small, flat circle, but expands to be a full studio background in a matter of seconds. The one I use is a 6x7' Westcott Masterpiece 2-in-1 Collapsible Illuminator Background with white on one side and black on the other. It sells for around \$220, and I also recommend buying the Illuminator stand to hold it up, which is another \$90, but unless you can stand there and hold it up (or have somebody else hold it up), it's worth its weight in gold. So, with this background, anytime you want to shoot, you just open the round plastic case it comes in, pull it out, and it pops up, ready to go. You put it on the Illuminator background stand, and you're ready to go. Another advantage of this particular background (over the seamless paper route) is that it's very portable, lightweight, and you can set it up in literally seconds—by yourself. The only downside is it doesn't go all the way to the floor seamlessly, so it's fine for 3/4-body shots, but not full-body shots. One more thing: although I use the black/white version, these collapsible backgrounds come in all sorts of patterns, looks, sizes, and colors.



USING OFF-CAMERA FLASH TO LIGHT BACKGROUNDS

If you want to add a light to your background (aiming back at your seamless paper), but you don't want to go through the extra expense of adding a second studio strobe, if you have a standard off-camera flash (like a Nikon SB-910 or a Canon 600EX-RT), you're in luck. You can set either of these off-camera flashes to become wireless slave flashes, meaning that when your studio strobe fires to light your subject, it automatically triggers your off-camera flash to light your background.



One Background, Three Different Looks



One nice thing about buying a white seamless background is, depending on how you light it (and what shutter speed you use), you can get three different looks. Here's how: (1) To have a white background, you have to light it, so position a light (or ideally one on each side) down low, aiming up a bit to light the background. That gives you white. (2) To have a gray background, just turn the background light(s) off. White paper needs light not to look gray, so when you turn those lights off, it gives you gray—your second color from the same white background. (3) To get a black background, leave the lights off, and increase your shutter speed to as high as your camera will allow (your maximum sync speed), which is probably 1/200 or 1/250 of a second. This makes your background go even darker—to at least a very dark gray or a solid black—just by changing the shutter speed. What you're essentially doing, by raising the shutter speed, is eliminating any light already in the room (called "ambient light").



HOW FAR SHOULD YOUR SUBJECT BE FROM THE BACKGROUND?

About 8–10 feet (unless you're using the main light to light the background). Here's why: (1) By keeping them far away from the background, you avoid your front light spilling onto the background. (2) If you use a separate background light, the two lights will be very distinct in the final image. And, (3) You won't have to worry about your subject's shadow falling onto the background. Shooting in a tight space? Move your main light in really close to your subject (the main light gets brighter and the light falls off to black much faster), and change your aperture. So, if you were at f/8, change it to f/11 or f/14, so the front light won't affect your background very much, if at all.



Getting Super-Saturated Background Color



Want some really vivid, punchy colors as your background? Start on a background of black seamless paper (I know, it sounds weird that we start creating vivid colors with a black background, but believe it or not, this is the easiest way), and then position a light on the background. Now, for a background light you can use another one of the same strobes you already have (so, basically, you're going to need a second strobe if you want to light the background, or there's the trick you can pull to use your off-camera flash as a background light that we talked about a couple pages ago). Once you've got your black seamless paper in place and a second strobe (or off-camera flash) positioned behind your subject, aiming at the background, the trick is to put a vivid-colored gel (a translucent piece of plastic) over the front of your flash, and when your background flash fires, the color it produces is rich, vivid, and surprisingly colorful. You can get these gels (made by Lee or Rosco) from B&H Photo for around \$6.50 for a 20x24" sheet (choose really vivid colors—reds, yellows, greens, etc.).



LIGHTING A WHITE BACKGROUND

To get it to look solid white, you have to light it—usually just one or two lights will do it, and they don't have to be very high-powered strobes. There's also a little trick you'll want to use to make sure that the light does make the background look that nice solid white, but without blowing out the background so much that the back light starts to wash out the edges of your subject: use a light meter. You want the background to be around one stop brighter than the light on your subject. So if your meter showed $f/11$ for your subject, you want the background to read one stop brighter (like $f/16$).



Reflectors: When to Use Silver or White and Where to Position It



The most popular reflectors are white, silver, and gold (although gold is usually used outdoors, because it adds warm yellow light). So, that leaves silver and white. Which do you use when? Silver reflects much more light, so you'll use silver when you position the reflector back away from your subject. If you need to get a reflector right up close, then use white, because it doesn't reflect nearly as much light as silver. Now, where do you put it? Its job is to bounce some of the light from your main light (your flash) back into the shadowy areas of your subject, so you'll need to position it where it can do its job. You can place the reflector directly beside your subject (on the opposite side from your studio flash), then move it a bit forward so it extends a little in front of the subject to catch the light and fill in the shadows. Make sure that: (1) it is indeed in front of them a bit, and not right beside them, and (2) it's not positioned up higher than they are—it should be at their height. Another popular place to position a reflector for head shots is directly in front of your subject, usually right below your subject's head and shoulders, so the light bounces back to lighten the shadows on their face—in particular, the areas under their eyes and neck. You can have your subject hold the reflector flat in front of them, or you can position it on a reflector stand, or even lay it on the floor in front of them. And, one other popular position is to place it out in front, where you'd place a second light (on the opposite side from your studio strobe), so it bounces light back toward your subject. The key thing to remember is: if the light isn't hitting the reflector fairly directly, it has nothing to bounce, so make sure that wherever you position it, the light from your strobe is hitting it directly. A quick trick for helping you position the angle of your reflector, so you know the light is hitting where you want it to: hold the reflector by its side and tilt it up and down a few times as you're facing your subject, and you'll see the reflected light move across their face.



Using Grid Spots



If you took your softbox off your strobe, the light from the flash bulb would pretty much just go everywhere. That's one of the reasons we use softboxes in the first place—to help us put the light where we want it and greatly soften it, of course, but softboxes are, by nature, soft. That's where grid spots come in. These attach right over your strobe's reflector, and have a metal honeycomb pattern that gives you a narrow, focused beam for very dramatic effects (the light will be hard-edged, because there's no softbox—it's a bare bulb with a metal reflector and a grid spot). Right now, you see these grid spots used big time as back-edge lights in portraits. These come in different degrees (like a 10° grid, a 20°, and so on), and the lower the number, the tighter the beam (I usually use a 20° or 30° grid). There's not much to using them. You just snap them into place and that's it—your beam is greatly narrowed. Put one on either side of your subject, aim them at the sides of their face, then use a strobe up front to put some fill light into their face, and—voilà—you've got the look.

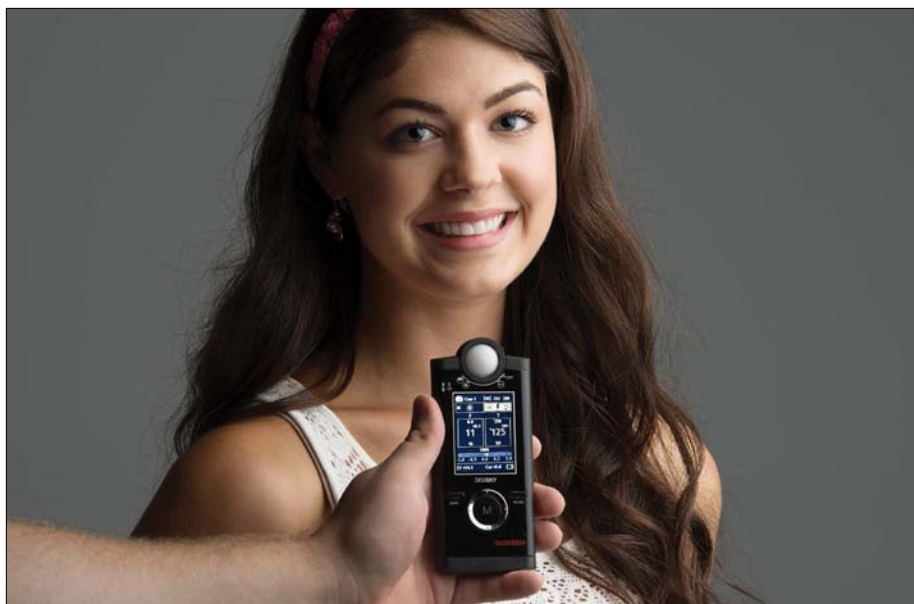


WHY YOU NEED SANDBAGS

I don't care how sturdy a boom stand you buy, one day (probably soon), it's going to go crashing over. That's why you absolutely need to have some sandbags, and to use them religiously when you've got anything on a boom or if you take anything outside on a shoot (where the wind can blow it over).



How to Use a Light Meter



Before you get started, there are three simple things you'll need to do before you measure the light from your flash: (1) Enter the ISO that your camera is set to into your light meter (so, if you're shooting at 100 ISO, you enter 100 ISO). (2) Enter the shutter speed you're going to be using (in a studio, I generally use 1/125 of a second—a good, safe shutter speed for working with studio flash. So, go ahead and enter 1/125 of a second). And, (3) make sure the round white plastic dome on the meter is extended (turn the wheel so it extends out). That's it—you're ready to put it to use. Most people aim the light meter at the light itself, but today's meters are actually designed so they work with that white plastic dome aiming back directly at your camera's lens. If you're metering a person for a portrait, position the meter directly under their chin, with the dome aiming back directly at the camera. Now, push the measurement button on the meter, and then fire the flash (if you're firing your flashes wirelessly, make sure you get a light meter that has a wireless trigger built right in, so when you push the measurement button, it fires the flash for you. Otherwise, you'll have to have your subject hold the meter under their chin and push the measurement button, so you can walk back to your camera to take a test shot, which fires the flash). When the flash fires, it instantly tells you the exact f-stop you need to dial in on your camera for a perfect exposure. Go over to your camera, make sure you're in manual mode, set your f-stop to what it said (make sure your shutter speed is still set at 1/125 of a second) and you've got it—perfect exposure. As long as you don't move the light or change the power of the flash, you can continue to use those settings. If anything does change, just take a new meter reading the same way and dial in your f-stop just like before.



Which Mode Should You Shoot In?



When it comes to shooting with studio strobes or flashes, this is the one time I would absolutely recommend that you shoot in manual mode. The reason is you need to set both the f-stop and shutter speed independently, and manual mode easily lets you do just that. Start by setting your shutter speed at 1/125 of a second (a good, safe speed that will sync your camera with your flash unit, no sweat). This shutter speed, in a studio, is a “set it and forget it” setting. Now all you have to worry about is setting your f-stop. So, set your shutter speed to 1/125 of a second, your f-stop to f/11 (great for studio portraits because everything will be in focus), and then take a shot and see how it looks on your camera’s LCD monitor. If it’s too dark/too bright, don’t change the settings. Instead, just raise/lower your flash power until the lighting looks right to you. Of course, you could just use a light meter to tell you exactly which f-stop to use for the power setting you currently have on your flash (if you’d rather not mess with changing the power of your flash).



WHY YOU’LL LOVE ROLLING LIGHT STANDS

At some point, you’re going to wind up buying light stands for your studio. Make your studio life much easier and buy light stands with wheels. Two big reasons why: it’s much faster and easier to roll them around than pick them up and move them, and they’re much safer. Lights are top-heavy. When you pick one up to move it, it’s easy to bang it into something, or lose balance and topple the whole rig over.



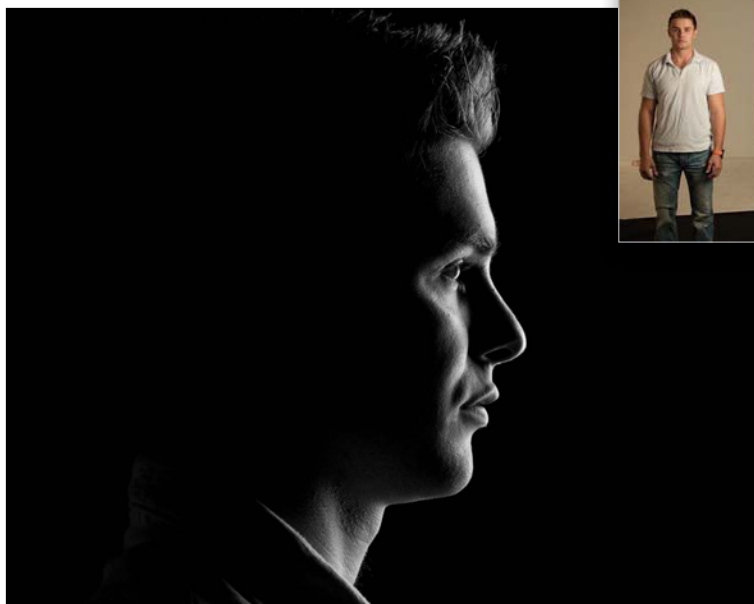
How to Set a Custom White Balance In-Camera



If you'd like to set a custom white balance in-camera, I would recommend using something like an ExpoDisc, which is a white balance tool used by a lot of pro photographers. Here's how it works: You start by putting the ExpoDisc over the end of your lens (it looks like a thick lens filter) and switching your lens to Manual focus (if you don't, your camera might not let you actually take a shot). Then, aim it at the light source (not at your subject—aim it directly at the main softbox you're using) and take a shot. Now, in your camera, you're going to assign that image you just took as your white balance reference image. Here's how: On Nikon DSLRs, before you take the shot, hold the WB button, then turn the dial until your White Balance is set to PRE, then release the WB button, and press it again until the letters "PRE" start blinking in your LCD panel on the top of your camera. That's your cue to take your shot (you have 10 seconds to take it), so aim your camera at your softbox and fire off a shot. You should now see GOOD appear in the LCD panel. That's it—your custom white balance is set (don't forget to turn your lens back to Auto focus, though). On Canon DSLRs, put the ExpoDisc over the front of your lens, aim at your softbox, and take a shot. Now, press the Menu button on the back of your camera, scroll down to Custom WB, and press the Set button to bring up the next screen, then press Set again to choose that shot you just took as the white balance reference photo. Lastly, press the White Balance Selection button on top of your camera, then rotate the Main dial until you see Custom WB appear in the LCD panel (don't forget to turn your lens back to Auto focus).



Rim-Light Profile Silhouettes Made Easy



This is one of those super-quick, 30-second tricks that have a big impact. First, aim your softbox sideways and have your subject stand directly in front of the center of it (facing your camera). Now, have them turn sideways toward the softbox, so they're facing it directly. Next, have your subject take a step or two sideways, closer to you (while you're at your camera position). Have them step sideways toward you until they have actually moved past the edge of the softbox (so there's no softbox in front of them at all. It's actually a foot or so behind them, from your vantage point at the camera). Now take your shot. What you'll get is a strong rim light all the way around the profile of your subject, and the rest will appear as a black silhouette. If you want a little light to appear on the cheek facing the camera, have them move just a few inches back toward the light until you see that cheek lit just a tiny bit (this is where the modeling light comes in handy, because you can see a preview of how the light will fall).



FRANK DOORHOF'S WORDS OF WISDOM ABOUT USING ONE LIGHT

My friend, and studio lighting wizard, Frank Doorhof has a great saying he shares with his students. He tells them: "When you think you need two lights, use one light. If you think you need three lights, use one light. If you think you need four lights, maybe then you might consider a second light." He makes a really great point—if you can use just one light, chances are it's really all you need. The more lights you add, the more complicated things get, the longer it takes, and the more problems and challenges arise.



Using a Fan for Windblown Effects



Shooting portraits of women? Buy a fan. Not just a fan, a powerful, hurricane-force commercial fan that would put most of your lighting equipment in jeopardy if you were to ever turn it on to its highest possible setting. Anyway, a fan with a nice kick to it (like the Lasko 3520 20" Cyclone Pivoting Floor Fan, for around \$35) creates a windblown hair effect that can add energy and excitement to your portraits (besides making the subject's hair look full and glamorous). The fan should be positioned on the ground, aiming upward at your subject, and once the fan is in place and turned on, there's not much else to do but shoot. If you get a huge, paying, fashion cover shot gig and you want to really impress your new clients, buy the only fan I've found that is made for shooting fashion—the Bowens Jet Stream 350 Wind Machine. With its 2500-rpm blast and a wireless remote, it'll be knocking your clients off their feet (and it should—it sells for around \$1,465). B&H Photo has 'em in stock. What the heck—buy two!



REDUCING GLARE IN GLASSES

If your subject wears glasses, seeing a reflection of the softboxes in their glasses is not uncommon, but you don't want such a strong reflection that it interferes with or covers their eyes. If that's the case, just move the main light to the side until the reflection goes away (it's easier than you'd think, because you'll see the modeling light reflecting in their glasses). However, what's important is that the glare is gone from the angle where your camera is set up, not from where you're moving the light. So this will go quicker if you have a friend or assistant move the light while you stand at the camera and tell them, "keep going...keep going..." until you see that the reflection is gone.



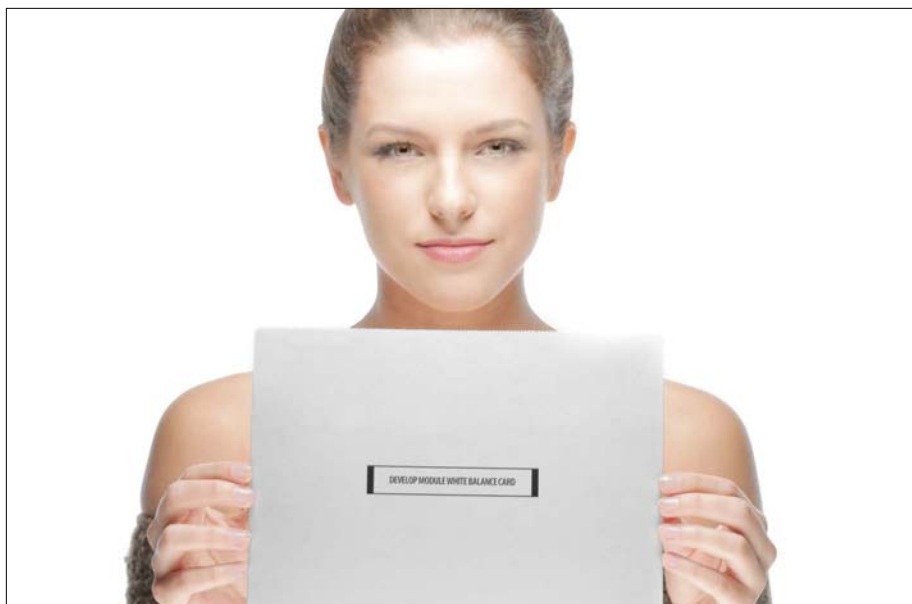
The Advantage of Shooting Tethered



You know that tiny LCD screen on the back of your camera? Yeah, that one. That little screen is what we use to make critical decisions about our photography (like “is this photo really tack sharp” or “are my subject’s eyes both open”), but that screen (usually either 2.5” or 3” in size) is actually smaller than the screen on our smart phones. I know—crazy, right? No wonder we misjudge sharpness and quality so often—that screen is absolutely tiny. That’s why, if I’m shooting in a studio, I shoot tethered directly into my computer, so that way I see each image really large (at least at 8x10” size on my laptop, or larger on my desktop monitor) right as I take it. At this larger size, you can really see what’s going on in your photo (and how your lighting looks), and you can make adjustments based on a much larger-sized image, which makes it hard to look at that tiny 2.5” or 3” LCD display anymore. Tethering itself is actually very simple, just two steps: (1) Connect a USB cable from your camera’s mini-USB port to your computer’s USB port. (2) Now, you just need some tethering software. Luckily, Adobe’s Photoshop Lightroom already has tethering built right in. If you don’t have Lightroom and you’re a Canon shooter, you already have the software you’ll need—it’s that EOS Utility software you got when you bought your camera (if you can’t find it, you can download it for free from Canon’s website). If you’re a Nikon shooter on a Mac, go to www.sofortbildapp.com and download their excellent free tethering software. If you’re a Nikon shooter on Windows, go to ControlMyNikon.com. If you’re a Sony Alpha-series DSLR Shooter, you can use Sony’s free Sony Camera Remote Control software.



Using a Gray Card to Nail Your Color



If you're going to be post-processing your images using a program like Photoshop's Camera Raw or Photoshop Lightroom, here's a trick that will make the color correction process absolutely painless, and nearly automatic. Once you get your lighting in place, have your subject hold up a gray card target that has light gray on it (the one shown here is a target that comes free with my book, *The Adobe Photoshop Lightroom Book for Digital Photographers*), then take a shot with it clearly in the frame. That's it—you need just one shot with the subject holding the card. Now, when you open your photos in Photoshop's Camera Raw or Lightroom's Develop module, and get the White Balance tool from the Toolbox (or the Basic panel), then click it once on the light gray card, your white balance is set. You can now apply that same white balance to all your RAW photos by copying-and-pasting just that white balance setting to as many photos as you want at once. A huge time saver.

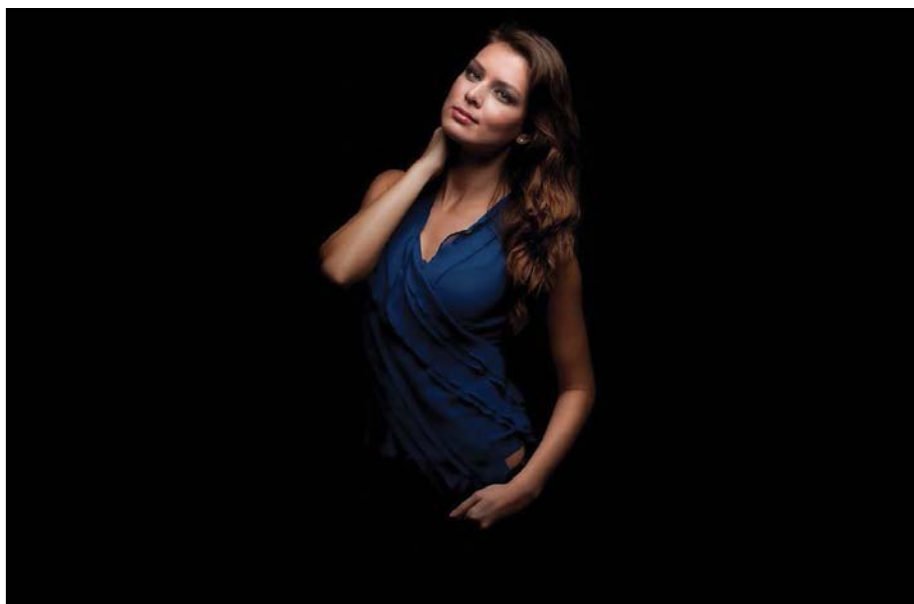


THE MOST USEFUL INEXPENSIVE ACCESSORIES

Gaffer's tape and about six or so A-clamps. They should be in every studio. You can find them at your local hardware store (or go online), and you'll find a hundred uses for them.



Don't Light Your Whole Subject Evenly



The first two things the human eye naturally focuses on in a photo are the brightest part and the sharpest part of the photo. Keep this in mind when you're shooting in the studio or on location (even with small off-camera flash), because if you light your entire subject evenly, you won't be directing your viewers to look where you want them to, which in most portraits is the subject's face. For a more professional look, you want their face to be perfectly lit, and then the light should fade away as it moves down their body. How much it fades away is up to you (it can fade to black if you want—your call), but when looking at your photo, it should be clear by the lighting where you want people viewing your image to look. One way you can control the light is to position it so it doesn't light all of your subject evenly, or to use a fabric grid, so the light doesn't spill everywhere, or even to use something to block the light from lighting the person's whole body evenly. I use a black flag (a 24x36" cloth flag) and position it under the light (usually on a boom stand), so the light is mostly concentrated on my subject's face. It doesn't have to block all of it—unless I want the person's body to fade to black—it just has to cut down the amount of light that falls on the rest of them.



USING A MODELING LIGHT

Studios are generally pretty dark during shooting, but you can use your strobe's built-in modeling light, which is a fairly dim, continuous light that stays on between flashes, to let your camera's autofocus do its thing. Another advantage of using a modeling light is that it gives you an idea where your shadows are going to fall on your subject (it's not exact, but it does give you an idea).



How to Light a Couple or Small Group



Lighting a couple or a small group is surprisingly easy, and you can do it with just one light and a large softbox, as long as you follow one simple rule: pull the light back fairly far from your subjects. If the light is too close, the person closest to the light will be brighter than the person standing next to them, and so on. Your goal is to have consistent, balanced light throughout the group, and the trick to that is to move your light way back. That way, the light pretty much hits the group at the same intensity, and the light looks balanced (just remember that moving the light farther away from your subjects makes the light darker, so crank up the power on your strobe to make up for that). Another helpful tip is to position the light fairly near the camera position (not way off to the side) or you'll have shadows casting across people in the group. You will want the light off to the side a bit, just not way off to the side. You can even position the softbox directly behind you as you shoot (if your head sticks up a little in front of it, don't sweat it), and that will do the trick, too. (Note: If you're thinking, "Hey, won't moving the softbox back farther make the subjects smaller in relation to the size of the softbox, so the light won't be as soft?" you're right, which is why you want to use a very large softbox for shooting groups. That way, when you move it far away, it's still big, so the light is still soft.)



LET YOUR MAIN LIGHT DO DOUBLE DUTY

If you only have one light, you can have it pull double duty by having it light your background, as well. The trick is to move your main light close enough to the background so that it actually lights it for you.



Big, Beautiful, Wrapping Light



Here's a simple one-light setup using a 54x72" shallow softbox made by F.J. Westcott. As big as it is, it's only \$350 and it creates some gorgeous light. Have your subject face forward, then put the light directly beside them and the light will literally wrap around them. Here, I had her face the light to really light up her hair, but they can face mostly toward the camera. In the studio, I usually choose $f/11$ because, for portraits, it's an f -stop that keeps everything perfectly in focus from front to back. But, I actually shot this at $f/10$ and that one f -stop doesn't make that big a difference. At $f/11$, I thought the lighting looked a little too dark. I could have cranked up the power on the light, but it was just easier (lazier) to lower the f -stop one stop and then the light looked much brighter. I was using my go-to lens: the 70–200mm $f/2.8$, and I was zoomed in to 100mm. My shutter speed was $1/100$ of a second (I probably accidentally moved the dial during the shoot—it would normally be at $1/125$ of a second). My ISO was 100. If I could tell you one hands-down, killer secret to getting really beautiful light, it would be to buy a really, really big softbox. The bigger the softbox, the more beautiful and wrapping the light. One posing tip: to help the light wrap around your subject, have them “play” a little toward the light (in other words, don't have them position their body so they are facing away from it—face them either straight ahead or aimed a little bit in the direction of the light). Also remember, whatever is closest to the softbox will be brightest (notice her arm on the left here). Just your standard portrait retouching stuff: removing minor blemishes, spots, or specks on her clothes, and brightening the existing highlights in her hair using the Adjustment Brush in Lightroom's Develop module (or Camera Raw). If you want really soft, creamy, luxurious, beautiful, wrapping light, get your hands on a really huge softbox, and the rest will take care of itself. Couple the size (bigger means softer) with getting your subject very close to the softbox (which makes it even softer), and you've got a tough combination to beat.



Edgy Lighting for Athletes



There are three lights here, in this easy setup. The two lights behind him have 1x3' strip bank softboxes (pretty inexpensive at around \$150 each), with an egg crate fabric grid Velcroed over the front to focus the beam of light, so it's more direct and doesn't spill over much. Turn off all your lights and then turn on one of the strip banks and aim it at an angle toward your subject. Since there are no lights on in front, it should look like a bright rim light outlining his body. Turn on the second strip bank, and it should look the same, but lighting the other side. Try getting both sides looking even in height and power output. Lastly, turn on the front light. Here, it's a beauty dish with a metal grid, but a small softbox will do, too. Put it right in front of your subject, up high and aiming back at him at a 45° angle. Want the background solid white? Aim another light at the background with a metal reflector on it (here, there's one on each side, behind the backlights) and turn the power up until the background looks solid white. I'm using flash, so I'm in manual mode on my camera. I'm using the 70–200mm f/2.8 at 70mm, I'm at f/11, 100 ISO, and 1/125 of a second. I'm not really big on black-and-white images, but I knew I was going to create one when I made this image, because I love how things like muscles and tattoos look in black and white, especially when it's really contrasty. **TIP:** If you have a very muscular subject, have them apply some body oil to help add a shine to their skin that really looks great (have some on hand before they arrive). Applying body oil is pretty common for body builders, especially in competition, so they won't be shocked if you ask. Even if I plan to create a B&W, I always shoot in color and then use a plug-in to convert to B&W. I use Silver Efex Pro from Google's Nik Collection. Just open your image into it (it works with Lightroom, Photoshop, and Elements), and click on the preset you like. I also add a lot of sharpening in Photoshop to give the image a really sharp, crisp look (Unsharp Mask setting: Amount 90, Radius 1.5, Threshold 0. If it's too much, try: Amount 120, Radius 1.0, Threshold 3).



Hurley-Look Headshot Lighting



This is a three-light shoot, but it's a really easy one. There are two lights on the subject: two 1x3' strip banks, one on either side of him. The third light is on a short light stand directly behind him, aiming up at the background. I'm using flash, so I'm in manual mode on my camera. I'm using my go-to lens (the 70–200mm f/2.8) at 130mm, at my ideal studio f-stop (f/11), my lowest, cleanest ISO (100 ISO), and my standard shutter speed of 1/125 of a second. Headshot photographer Peter Hurley—who inspired this lighting look—uses continuous lights for his front lights, rather than strobes (he uses strobes on his background), but those are very expensive (strobes are a cheaper alternative). He places four lights to create a window, but here, I'm only using two lights. His trademark square-of-light look produces a nice, flat, flattering light, but at the same time it's bright and punchy—a wonderful combination for headshots. But, what Peter is famous for isn't just his simple lighting look, it's how he works with his subjects to get natural expressions and flattering poses. Our lighting setup here is designed to get close to his look without spending a lot. If you want to learn more about Peter's lighting setup and his tricks for getting the most out of his subjects, check out his book, *The Headshot* (published by Peachpit Press, and edited and produced by yours truly). Even though I was involved in producing the book, I can tell you without reservation, it rocks (and I learned a lot during the process. The guy's a genius). For post-processing here, it's just your standard portrait retouching stuff.



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