Fill Flash *cheat sheet*

**Pick your effect. Punch in the numbers. It's as simple as that. by Dan Richards**

All these images were made with a Canon EOS 10D digital SLR, 16–35mm f/2.8L Canon zoom, and a single Canon Speedlite 550EX with no attachments, except when noted. You can expect very similar results when using color slide film. Color print shooters may see less variation in their pictures, but all the principles stated here apply to print film as well.

O nce upon a time, balanced fill flash (flash that blends in naturally with ambient light) was a gruesome affair, involving tape measures and Guide Numbers and aperture juggling and tide tables and...you don't want to know the rest. Now, it's simply a matter of setting a control on your accessory
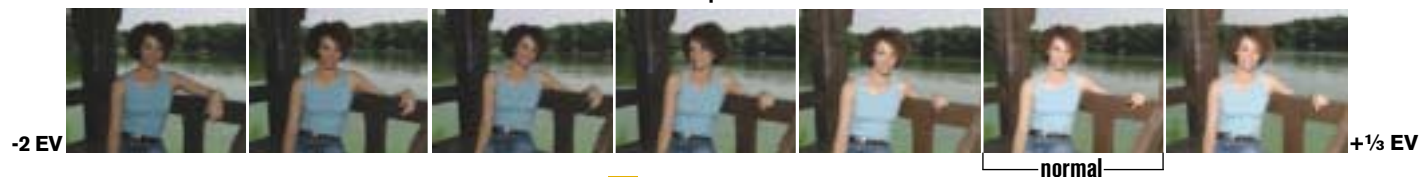
TTL flash unit. But lots of people still seem to be just as confused as in the old days. (Those 200-page manuals may have something to do with it.)

If you're one of them, first get over the three Mental Blocks listed next door, and follow along to beautiful flash pictures.

Ambient exposure

-2 EV   normal   +1⅓ EV

Flash exposure

-2 EV   normal   +⅓ EV
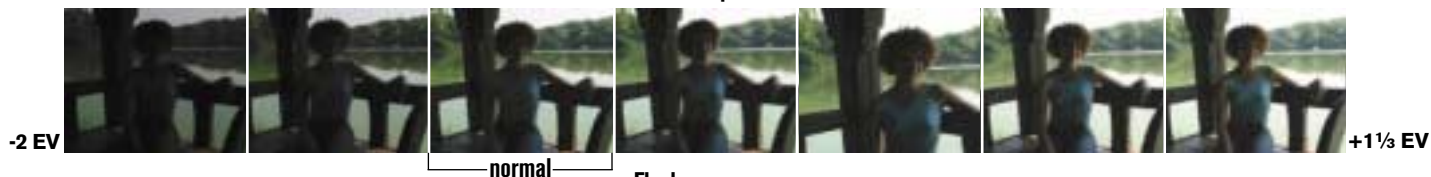
Less filling, looks great

Normal ambient

+

-1⅓ EV flash

We used good old center-weighted metering on the background to set a manual exposure of 1/200 sec and f/8 (at ISO 100). With the flash on auto, we dialed the flash down to -1⅓ EV. That's all there is to it. The result is a classic flash/ambient balance. Tip: Don't fixate on f-stops and shutter speeds. Just think of flash and ambient exposures in terms of exposure compensation— how much they deviate from the "normal" meter reading.

Mind your sync speed!!

Your SLR is limited in the top speed it can use with flash (usually 1/125 to 1/250 sec, depending on model). Most current SLRs will automatically limit you to top sync speed, even in manual exposure. If you're using an older camera, check the top sync speed and be sure to stay at that speed, or under it, when setting your ambient exposure.

MENTAL BLOCK NO. 1

I have to set the camera to automatic to use auto-TTL fill flash.
No! The best way to use auto-TTL fill flash is with the camera on manual exposure. You'll soon see why.

MENTAL BLOCK NO. 2

Pictures made with fill flash are single exposures.
Wrong! Every flash picture is a simultaneous double exposure. The filmstrips (left) split the component parts of a fill-flash shot. You can adjust the ambient (background) and flash (foreground) brightness as you choose. Think of it as two dials.

MENTAL BLOCK NO. 3

There's only one right exposure combination for fill flash.
Bunk! You can use a variety of different flash/ambient combinations to get just the effect you want. We show you several common combinations of flash/ambient exposures. Mix and match 'em!

FOLLOW THESE THREE STEPS:

1. With camera on manual exposure, meter the background of the scene. Use this meter reading, or over/underexpose to get another effect you like, as shown.

2. With flash on TTL auto, dial or press in an exposure-compensation value to get an effect you like, as shown.

3. Shoot away! Try other settings, too.

The perfect balance isn't so perfect

normal ambient + normal flash

A 1:1 balance between flash and ambient (the balanced-fill setting you get with many cameras on full auto) is nice in its own way, but it looks somewhat artificial.

Make backlight look like backlight

+²/₃ EV ambient + -1 flash

Increasing the background exposure often makes fill-flash shots look more natural, because our eyes expect backlight to be much brighter than the subject.

Twilight at 10 a.m.

-1 EV ambient + normal flash

Underexposing the background with a standard flash exposure exaggerates the effect of the flash. You may want to use it for the look (this is big in fashion photography).

Make flash look like no flash

+²/₃ EV ambient + -2 EV flash

With flash exposure dialed way down, and a slightly overexposed background, the effect is close to no flash. But rest assured, our model would be a silhouette without that little pop of flash!

Getting a good bounce: indoor fill flash

When shooting indoors, don't limit yourself to direct fill flash. Try these techniques. All photos were taken with +²⁄₃ EV exposure of the background window, and -¹⁄₃ EV flash.

Direct flash with diffuser

Accessories such as the Lumiquest (shown) soften shadows and tone down hot spots, but the effect is almost the same as bare flash.

Side-wall/ceiling bounce

Firing the flash into the seam of one wall and ceiling evens out the exposure, tones down the hot spots. Pretty good for a single flash unit, eh?

Ceiling bounce with panel

Flash bounced on the ceiling provides nice soft lighting, but our model's eyes are dull without catchlights. Effect of the flash catchlight panel (shown) was negligible.

Without flash

Front-wall bounce

Bouncing the flash off the wall directly in front of the model provides even, soft lighting like a front softbox, at the expense of window reflections.

Side-wall bounce

A white wall makes an instant softbox. Some hot spots and window reflections behind, but they're not all that bad, and the catchlights and modeling on the face are quite nice.

Ceiling-corner bounce

Aiming the flash into a corner where two walls and ceiling meet makes for something like umbrella lighting: diffused, but with good modeling and facial highlights. Hot spots, yes, but not too bad.

When is full power not full power?

Don't get confused. Most accessory flashes have a manual "full power" setting that is exactly what it sounds like: It whomps out every bit of charge in one almighty flash blast. This is very different from the setting called "1:1" or "100 percent fill" or "full fill." This is the automatic setting that cuts off the flash when it reaches normal flash exposure. In other words, it's zero flash-exposure compensation.

USE THIS FLASH COMPENSATION:	TO GET THIS FILL RATIO:	TO GET THIS EFFECT:
-2 EV and under	1:4	Verging on unnoticeable flash; moody portraits
-1⅔ to -1⅓ EV	about 1:3	"Classic" ratio for natural-looking portraits
-1 EV	1:2	Fill when more detail or "flashy" look is desired
0 EV (normal)	1:1	Obvious flashed look; use with underexposed background for "paparazzi" or night-at-day effects
+1 EV	2:1	Harsh, burned-out faces; portraits of your enemies

Who is PHIL RATIO, and why is he such a big shot?

Fill ratio is a traditional way of expressing the balance between fill flash and ambient light. A 1:3 fill ratio (considered the "classic" ratio) means that the fill light is about one-third the strength of the surrounding light. Trouble is, your system flash unit isn't adjustable by ratio; it's set in exposure-compensation levels. (And 1:3 works out to something like -1.732 EV. Eek!)

Don't sweat it. Use the table shown to pick the effect you want, and dial in that level of compensation.

HERE'S WHAT YOU NEED:

Accessory flash units with exposure compensation usually have menu buttons and an LCD readout to let you dial in flash adjustments, though some have slider switches or the like.

Consider a TTL connector cord: it lets you point the flash any which way and still have full automation.

Flash-confirmation lamp tells you that flash puts out enough power for exposure. Keep an eye on this when using bounce flash, or at long distances!

A built-in slave trigger lets you use wireless TTL control.

Wireless triggers take the place of a cord, giving you even greater freedom in positioning the flash. Some Minolta Maxxums can employ the built-in flash as transmitter with compatible Minolta or Sigma flashes.

FAQs
(flash-associated questions)

Q. OK, now can I use autoexposure?

A. *Sure. The best way is to meter the background and use AE lock. This, of course, won't save you any time.*

If you just frame and shoot the scene on autoexposure, remember that the TTL system will take both subject and background into account to adjust the exposure. You'll get a fine exposure—but it may not be exactly the exposure you want. That's why we like to use manual metering to set it and forget it.

Q. Can I use these techniques with a built-in flash?

A. *Yes, if your camera has flash-exposure compensation. Many cameras don't.*

Q. Now wait a second. If you increase or decrease the background exposure, aren't you changing the fill flash ratio?

A. *Well, yes, but if you start trying to calculate the ratios, you will go mad, and we will not be held responsible. Using exposure-compensation level is just so much easier.*

Q. Some of your -2 EV flash shots look lighter than some of your -1 EV flash shots. What gives?

A. *Unless your subject is in absolute silhouette, increasing the ambient exposure will also lighten the foreground subject. (We call it backlight compensation, remember?) Generally, the more you overexpose the background, the less fill flash you can get away with.*