

Photography

Research

7.7 Freezing Hummingbirds
A perennial question from literally hordes of bird enthusiasts is how to "freeze" hummingbirds via stop-action photography. The simple answer is that it doesn't require a fast shutter speed, but rather a short flash duration in conjunction with a high flash ratio. We'll dissect this strategy in detail below.
Fig. 7.7.1 : Freezing hummingbirds is done using flash, not using fast shutter speeds! (1/250 sec, f/11, ISO 400, TTL flash at +0 FEC, 560mm)

Freeze hummingbird
Stop Freeze action with wireless flash.

Stop action photography
You set the lens to manual focus because the camera can't lock focus on a car traveling at a high rate of speed.

Sony trigger multiple wireless flashes

shutter speed = ambient level

aperture = flash level

iso = ?
changing aperture will change DOF. iso is critical but will introduce noise.

HSS flash limited range? Auto FP

The short duration of the flash becomes your shutter speed so you don't need to worry about using HSS to get a higher shutter speed. The flash burst duration will be 1/1000th sec or shorter and this will stop motion.

You will probably need higher ISO to give you enough leeway to balance your flash exposure with the ambient light. You will also need to adjust the white balance of your flash using an appropriate gel, based on the ambient light source.

But as has been stated are you sure you need it.? Surprisingly HSS is more us in conjunction with hi ambient light were ghosting will occur without hss to keep the shutter speed up.

On camera flash HSS

Off camera HSS

On camera Manual mode High ISO

Off camera High ISO

Meter for ambient with ISO, shutter speed, and aperture in Manual mode. Now, without changing your aperture, set your shutter speed two stops faster than needed for ambient, and shoot with your flash in E TTL is one way.

Every time you take a flash photo, you are making two exposures simultaneously. You are making an exposure of the ambient light, and an exposure of the flash's light.

The ambient exposure is controlled by the shutter speed. The flash, being instantaneous, is controlled by the aperture.

the "2 stops below ambient" system

Next, I'll "dial down" my ambient exposure. This means nothing more than changing my camera's settings to underexpose the ambient. How much? That's your choice. And it will determine the contrast range in your final, lit picture.

Why are my HSS photos so dark?

Action

Flash/Light

My flash photos are still dark (HSS)

Take photo across light source. Note: Won't include shadow.

Light to accentuate musculature.

Freeze action.

Lens

Use 50mm prime. It's very fast.

Checklist

1 Flash

1.1 AA batteries

1.2 Soft box

1.3 Stand

1.4 Reflector/diffuser

1.5 Tripod

2 Accessories

2.1 Lens brush

2.2 Remote trigger

2.3 Camera batteries

A book

For photographs place EXIF information on the picture on the photo in addition to text and watermark.

Bu an amateur. For amateurs.

Pick your ground

Know the season

Bird Photography

Resources

Audubon

National Geographic

**/Photography/Research/Why are my HSS photos so .../the "2 stops below ambient"...**

[http://www.jagsportsphotos.com/photos/410298129\\_ZKmBx-L.jpg](http://www.jagsportsphotos.com/photos/410298129_ZKmBx-L.jpg)

[http://www.jagsportsphotos.com/photos/410298768\\_cp3wn-L.jpg](http://www.jagsportsphotos.com/photos/410298768_cp3wn-L.jpg)