

# SURVIVAL GUIDE: 35MM FILM CAMERA OPERATION

## FILM SPEED:

Use faster film in low light (400 ISO, 3200 ISO). Reset your ISO when you load your film, unless you have an automatic camera with DX coding.



With manual cameras, check the film rewind mechanism to be sure that it is rotating, that your film is advancing. Also with manual cameras, depress the rewind button when the film reaches the end of the roll. Gently and evenly rewind the film back into the canister prior to opening the camera back. Don't rewind film too quickly; avoid the generation of static electricity. Electronic cameras will initiate the rewind mechanism automatically.

**CONSIDER THE QUALITY OF LIGHT.** Avoid excessively low light unless you are using a tripod. Try working under softer light. Be wary of contrasty, harsh light present at noon. Try photographing before 10:00 AM and after 2:00 PM. Look for the magic hour (late afternoon, in the winter) when the air is clear and the soft quality of the light transforms even the most mundane scene. Try photographing in open shade, or under cloudy skies on an overcast day. (Remember, direct on-camera flash can create problems with print contrast.)

**IMAGE CLARITY:** If you are hand-holding, avoid using shutter speeds slower than 1/60. Try using a tripod for slow shutter speeds. Lean against a wall or set your camera on a ledge or table. Hold your breath to steady yourself. Always depress the shutter gently. Don't leave the shutter cocked.

**EXPOSURE AND RECIPROCITY:** Your meter will indicate possible shutter speed/aperture (F stop) combinations for a given light situation. In lower light you will have fewer options unless you have a tripod. Zoom and telephoto lenses will limit aperture selection. They require a larger aperture in low light than standard or wide angle lenses. Whenever you change the aperture setting, you must then alter the shutter speed in the opposite direction (reciprocity) to produce the same exposure.

F 8-----change to F 11 (smaller aperture setting)

AND

1/125 ---change to 1/60 (longer exposure time)

## TO OBTAIN AN EQUIVALENT EXPOSURE

The aperture settings work like the human eye. In low light the larger apertures, 2.8, 4.0, 5.6, provide the maximum amount of light. Your pupils dialate in low light; you open the aperture in low light.

Your meter reads the brightest light available, which can often affect the meter reading. Point your camera downward so that the meter will read more of the landscape and less of a bright sky. Back-lighting can provide a number of problems. In this case meter off your subject. Then step back and take the exposure.

## BRACKETING EXPOSURES to obtain GOOD NEGATIVE DENSITY:

Bracket toward overexposure when working with negative film. Expose film at metered setting. Then expose another frame at 1/2 stop or one full stop increased exposure. In both of the cases listed below the exposure will be +1, or one stop additional exposure, or double the normal exposure.

If the original setting was 1/125 sec at F11:

Leave shutter speed at 1/125 sec and **OPEN THE APERTURE** to F8

(increase amount of light by using a larger aperture)

## OR CHANGE THE SHUTTER SPEED

leave the aperture at F11 and set the shutter speed at a SLOWER setting, 1/60 second

(increase amount of light by using slower shutter speed)



**OR USE THE BRACKETING FUNCTION** on your camera to override your exposure meter, to either overexpose or underexpose the image.

## CREATIVE CONSIDERATIONS:

**FOCUSSING THE LENS/ MANUAL OR AUTOMATIC:** Selection of the plane of focus places emphasis on a specific area of the picture plane and may affect the determination of depth of field. Automatic cameras offer a range of options such as manual focus, autofocus, focus lock, and focus tracking. Select manual focus initially to become more aware of the process of selecting a plane of focus. In the context of photographing a single subject, try focussing on the foreground for one shot and on the middleground or background for another. Review these negatives/image files to see the variations that can be produced. Your aperture setting is an important factor in the determination of the depth of field.

**LENS APERTURE SETTINGS AND EFFECT ON DEPTH OF FIELD:** Sharpness from the foreground of the image to the background is determined by the aperture. If you are using a smaller aperture such as F11 or F16, you will retain greater depth of field. Avoid focusing consistently on the subject, on the object positioned in the center of the frame, or on the horizon. Consider the potential sharpness over the DEPTH of the image FIELD.

Consult your depth of field scale on your camera. Or use your depth of field preview button to "pre-view" the depth of field produced when the image is exposed at a particular aperture. You will have no depth of field when the lens is wide open (i.e. F2) and maximum depth of field at the smallest F stop (i.e. F22). A general guide is to focus one-third of the way into the subject FIELD. Your frame limits image height and width. Depth of field affects the illusion of "depth". To produce shallow depth of field focus on your subject and open the aperture.



A shutter speed dial with a range of settings.

The film ISO or film speed is rated at 400.

## SHUTTER SPEED:

To freeze action use a faster shutter speed (i.e. 1/250 sec or 1/500 sec). Using a slower shutter speed when an object moves in front of the lens creates a blur effect. The use of a tripod may prevent unintended blurring with slower shutter speeds. Some areas of the image will be sharp and the moving areas may be blurred. This contrast in relative sharpness also occurs when panning techniques are used.

## AUTOMATIC EXPOSURE MODES



This automatic camera dial permits the selection of different exposure modes, including **Manual Mode, Aperture Priority, Shutter Priority, and Program Modes.**

**M is for Manual** which requires the photographer to set all shutter speed and F stop settings based upon feedback from the camera meter.

**P is for Program**, which selects a generic shutter speed (usually 1/90 sec) and corresponding aperture setting in response to a given set of lighting conditions.

**S is for SHUTTER PRIORITY**(as denoted with an S or Tv for time variable).

With automatic/electronic cameras, set the mode to **SHUTTER PRIORITY** initially and set the shutter speed to 1/90 or 1/125. With an electronic camera you can use 1/180 second (see below) 1/125 second or 1/90 second. In shutter priority, the F stop setting may blink if the light is too low to adequately expose the film.

**A is for APERTURE PRIORITY**

After you gain more knowledge working with your camera, switch to **APERTURE PRIORITY (as denoted with an A)**. Select the preferred F stop or aperture setting depending upon the lighting conditions, and your intention to control depth of field. Note the corresponding shutter speed that the camera matches with your selected F stop when working in APERTURE priority. But keep your eye on the resulting shutter speed.

**Avoid using speeds slower than 1/60 when hand-holding your camera.**

**This camera is set at 1/125 second shutter speed and an F stop or aperture setting of F16.**



**FRAMING:** Try to judge exposure, distance, and corresponding depth of field in advance to be ready for a candid shot. You don't have to hold your camera to your eye. You may produce a more interesting image by varying your framing....horizontal, vertical, diagonal, centered, off-centered, weighted to the left or to the right, empty in the center with the subject at the periphery...

**AESTHETICS:** Consider visual organization. Which design elements and principles seem to be dominant in your images? Perhaps your method of image selection relies less on design and emphasizes the process of looking and framing.

**CONTENT:** Through the process of imagemaking the photographer learns more about about personal intentions, about one's ability to communicate an idea or experience in visual form.

**NOTES ON ACCESS:** Be sensitive to limitations to subjects. Some topics could take months to explore fully. Certain locations such as shopping malls, supermarkets, and even corporate buildings are considered private property, where photographing is often not permitted. Public events such as county fairs and public places such as streets and sidewalks in general have few restrictions. **When you are in doubt, ask permission first.**