USING LIGHT METERS: reflected and incident meters 2019

Remember that your light meter is a sensitive instrument. Dropping a light meter can result in irreparable damage. If you have concerns regarding your light meter's operation, consult with the instructor. If you are having problems with the camera's built-in light meter, you can use a handheld light meter instead.

There are several kinds of meters that differ in terms of function:

1) REFLECTIVE

Like your camera, a reflective light meter measures the quantity of light reflecting from the surface of an object or a surrounding environment. This meter, like the meter inside of a camera, is pointed at the subject to be photographed.

IF you meter off a gray card using a REFLECTED light meter (or your built in camera meter), then the reading should be the same as an INCIDENT light meter reading. Light meters are designed to meter for 18 percent gray, the value of a gray card.

2) INCIDENT

The incident light meter measures the light illuminating an object or surface. An incident light meter is often pointed in the direction of the camera--while being positioned near the subject--to average the amount of light falling on the subject. Care is taken to avoid casting shadows on the meter's light dome, unless the subject to be photographed is also in shade. An incident light meter is useful when working with studio strobes or hot lights in order to gain greater control over lighting exposure and contrast. An advantage of using the light meter is to render all the values of the scene correctly--light values will remain light, grey values will be grey and dark values will be rendered dark. On the other hand, with a reflected light meter, the photographer must alter the meter reading when measuring light reflecting off a high key, mostly white subject or low key, mostly dark subject. A reflected light meter averages the light to produce an average exposure value, rendering the subjects placed before the camera as 18 percent gray. Whether the composition is primarily dark or light, the meter's reading will produce an average value resulting in a grey or middle value image. When working with a reflected light meter the photographer, respectively, must increase or decrease the exposure with a high key or low key subject.

4) AMBIENT AND/OR FLASH

Most light meters will read daylight or ambient light, namely the consistent light source in an environment. Flash meters read the flash illumination triggered by a strobe, and often read ambient light as well.

SEKONIC L-358 FLASH MASTER METER



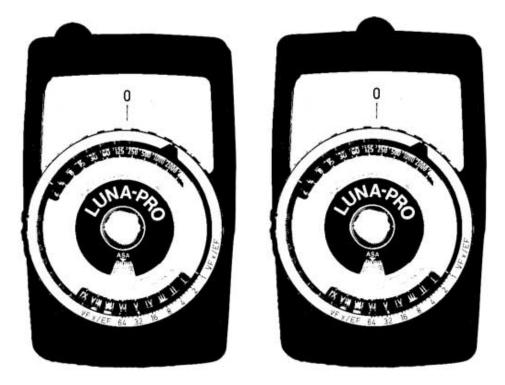
The Sekonic is used primarily as an INCIDENT light meter for work with STROBE illumination.

- Press the POWER button to turn the meter on. Rotate the dome to raise it from the base of the meter, in preparation for taking a light reading. (note the icons near the dome itself) The dome is placed in the UP position for photographing three dimensional objects. For flat copy leave the dome in the DOWN position.
- 2) Hold down the ISO button and rotate the command dial or jog wheel to set the ISO,
- 3) which appears in the top right corner of the LCD display.
- 4) Hold down the MODE button and rotate the command dial to the lightning bolt (with cord or cordless or with transmitter) for strobe illumination, or the sun icon to shoot under ambient light or continuous light--these icons all appear in the top left corner of the LCD display. The mode menu also offers settings for multiple or cumulative flash and ambient light.
- 5) To sync to flash, use the built-in Pocketwizard transmitter to trigger a flash unit equipped with another Pocketwizard transmitter to establish a wireless connection. Or, when working with the flash synchro cord mode, attach the flash sync cord to the meter's sync connection, the flash cord socket, (on the lower right of the meter) to allow the meter to trigger the flash.

- 6) Press the measurement button on the right side of the meter to take a meter reading.
- 7) Note the F stop displayed on the right side of the LCD after the flash fires, in this example F16/22.
- 8) When you use the Sekonic meter for an incident light meter reading, position the meter at the subject position, while pointing the meter toward the camera.
- 9) Rotating the command dial will permit changes in the setting of the shutter speed/aperture. The incident meter can also be pointed directly at a light source to meter the light emitted from an individual flash head, for example, in order to determine brightness difference. To measure brightness difference with this Sekonic meter, leave the dome in the DOWN position. For more information about the use of this light meter, review the manual.
- 10) The icon for the battery level is located just below the indicator for the lighting MODE.

LUNA PRO LIGHT METERS

Meter dome set for REFLECTED light meter reading. -dome is pushed to LEFT position-



Meter dome set for INCIDENT light meter reading. -dome is pushed back to CENTER positionWhen the light dome on the Luna Pro is moved out of the way, the meter functions as a REFLECTIVE light meter, just like your camera. In that case, place the meter at the camera position and point it toward the subject for a REFLECTED LIGHT METER reading.



THE GOSSEN LUNA-PRO SBC METER:

- 1) Set the ISO by rotating the inner circular dial. In the example above, the ISO or ASA is set at 100. Push the white dome located at the top of the meter to one side to use the meter for reflected light.
- 2) Press the RED button on the left side of the meter, while pointing the meter at your subject.
- 3) Rotate the outer dial to ZERO the meter. (In the example above, the red needle will move from current position at 2 to the new position at zero.)

- 4) After rotating the dial to zero the meter, choose one of the resulting Fstop / shutter speed combinations. For example, select F16 - 1/30 sec or F11 - 1/60 sec. Each one of these combinations will produce an identical exposure, but with different results relating to the characteristics desired in the final image.
- 5) The light meter's battery can be checked by pushing a green button at the left side of the meter. The red needle should jump to the green indicator bar (which reads BATT) in the upper display window if the battery level is adequate.



THE GOSSEN LUNA PRO S METER

- 1) Set the ISO by rotating the inner circular dial. In the example above, the ISO or ASA is set at 100. Push the white dome located at the top of the meter to one side to use the meter for reflected light.
- 2) The Luna Pro S Meter has a toggle switch on the right side of the meter which permits readings under low light (pushing the top part of the button) or brighter illumination (pushing the bottom part of the button). The red needle will jump to the appropriate number, known as an exposure value or EV.

- 3) After pressing the toggle switch, locate the exposure value in the yellow band at the top. In the example above, the EV or exposure value is 15.
- 4) Match the exposure value displayed in the yellow band at the top to the dial (in this case the number 15) to the window at the base of the meter (lining up the number to the yellow triangle). Rotate the outer dial, moving the yellow triangle to the number 15, which has been already been done in the example above. Match "yellow to yellow."
- 5) After rotating the dial so that the yellow triangle matches the appropriate exposure value, choose one of the resulting Fstop /shutter speed combinations. For example, select F16 -1/30 sec or F11 - 1/60 sec. Each one of these combinations will produce an identical exposure, but with different results relating to the characteristics desired in the final images.
- 6) The light meter's battery can be checked by pushing a sliding button at the back of the meter. The red needle should jump to the red indicator bar in the upper display window if the battery level is adequate.

4) SPOT METER

Many digital cameras include the option to set the internal light meter to obtain a spot meter reading. A spot meter is a kind of reflective light meter which reads only a narrow angle of light reflecting from a surface, from 1 to 10 degrees. The advantage of working with a spot meter is the ability to obtain an exposure value from an area with a specific tone, as in a dark shadow of Zone III or a highlight of Zone VII. The photographer can use the meter to determine a subject brightness range or to meter off a specific value, as in a small object within a still life or the distant texture in a landscape. As noted above, the exposure must be altered from the initial reading to prioritize a specific dark or light value.

