

Figure 1.14 Spectra incident light meter.

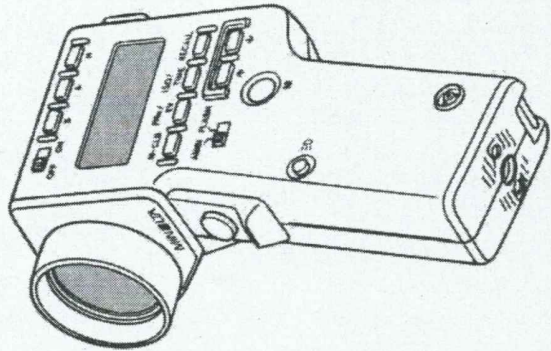


Figure 1.15 Minolta reflected (spot) meter.

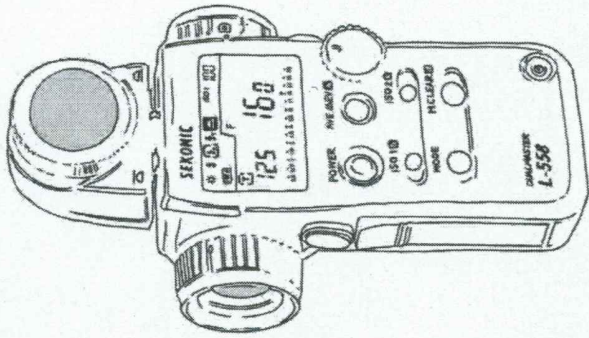


Figure 1.16 Sekonic combination light meter.

COLOR TEMPERATURE AND COLOR BALANCE

For professional cinematography, proper color reproduction of objects in a scene is dependent on the color temperature of the light source used to illuminate the scene. This applies when shooting film or video formats. Each light source is considered to be a different color and therefore has what is referred to as a *color temperature*. The human eye cannot accurately distinguish between the different colors of light, but motion picture film stock is much more sensitive. When shooting video you must often set specific menu items or settings on the camera so that the colors in the scene are accurately reproduced.

Scientists take an ideal substance, what they refer to as a “black body,” and heat it. They then measure its temperature as it emits different colors of light. Think of this black body as a piece of iron being heated up. As this piece of iron gets hotter, it begins to glow different colors, first yellowish-orange, then red, then blue, and eventually white hot. The color of the light is then identified by the temperature at which it became that color. This temperature is called color temperature. Color temperature is measured in degrees Kelvin (K), which is a temperature scale used in physics. Reddish color light has