ABOUT THE LIQUID CRYSTAL DISPLAY (LCD)

1. At high temperatures (over approx. 60°C), the whole surface turns black so that the exposure information cannot be read. However, this situation will return to normal when the temperature drops.

2. Avoid storing the camera in excessively hot places, such as in a car parked in direct sunlight or inside the trunk. You may shorten the LCD's life by doing so.

3. When the temperature goes below freezing, the response time decreases as the liquid crystal becomes more viscose.

EV RANGE OF THE CAMERA

The camera's meter may be used only within the shutter speed range covered by the exposure value (EV) range of the meter, which varies with the aperture and ASA/ISO settings.

The chart on page 35 shows the relationships between the f/stop, shutter speed and film speed, indicating the slowest functioning shutter speed (for metering purposes) with any film speed/aperture combination.

Careful attention to the following instructions will assure precise exposure, automatically, over the complete exposure control and meter range capabilities of your Nikon F3 High-Eyepoint camera.

• Auto exposure control at full aperture

For example, with an f/1.4 lens and ASA/ISO 100 film, the automatic shutter will function down to one second with the lens set at f/1.4, and proportionately slower as the aperture is closed. However, practically speaking, even if the shutter speed/aperture combination is outside the guaranteed EV range shown in Section C of the EV Chart, you can still obtain good exposures at either the AUTO or MANUAL setting unless "+ 2000" or "—8—" appears in the viewfinder.

Using a standard of ASA/ISO 25 film, you may be assured of at least a four-second speed regardless of the aperture of the lens used as long as the lens is set at full aperture (refer to Table).

Using ASA/ISO 400 at f/1.4, the slowest speed is 1/4 second; however, as the aperture is closed down, the functioning shutter speed becomes progressively slower until we reach f/8 when the slowest speed of eight seconds is functioning.

• Auto exposure control with stop-down metering

When using a bellows or other extension equipment which disengages the meter coupling device, it is necessary to revert to stop-down metering. Certain limitations are imposed in this mode.

As lens-to-film distance is increased, the metering range (EV range) changes proportionately. For example, when an f/2 lens is used at 2:1 reproduction (twice life size) the effective f/number is f/5.6. When used at f/8, the effective f/number is f/22.

When pictures are taken under minimal light levels, it is desirable to use a high speed film (ASA/ISO 160 or higher). Using Tri-X at film speed 400 with stop-down metering, with an effective f/number of f/8, the shutter speed range would be from 1/4 second to 1/2000. Should the light level drop

below EV 6, it would be out of the shutter speed range of the meter.

ASA/ISO speed	Slowest shutter speed (sec.)
6400	1/60
3200 (4000)	1/30
1600	1/15
800	1/8
400	1/4
200 (160)	1/2
100 (80)	1
50 (64)	2
25	4
12	8

Table

Slowest shutter speed at full aperture with any lens

How to read the EV chart

• Full-aperture metering

Example: Lens maximum aperture f/1.4
ASA/ISO film speed 100
Workinq aperture f/5.6

By referring to the f/1.4 column in Section A and the EV values indicated for ASA/ISO 100 in Section D, you will find that the EV range for an f/1.4 lens at ASA/ISO 100 is 1 to 18. Now, refer to Section B and single out the f/5.6 indication for ASA/ISO 100. Go diagonally down until the protruding line intersects with Section C's vertical line for the shutter speed of 8 sec. (the F3 High-Eyepoint camera's slowest shutter speed). From this point of intersection, follow the horizontal line that leads to Section D's EV value for ASA/ISO 100, and you will obtain an EV value of 2. Start again from the f/5.6 indication for ASA/ISO 100 in Section B, and go down diagonally until the protruding line intersects with Section C's vertical line for the shutter speed of 1/2000 sec. (the F3 High-Eyepoint camera's fastest shutter speed) this time. Then follow the horizontal line that leads to Section D's EV value for ASA/ISO 100, and you will get a reading ot EV 16. This means that an f/stop of f/5.6 at ASA/ISO 100 and a shutter speed of from 8 to 1/2000 sec. has an effective EV range of 2 to 16, which is well within the F3 High-Eyepoint camera's metering range ot EV 1 to EV 18. The area encompassed by the heavy lines in Section C demonstrates a metering range for full aperture method using an f/1.4 lens and ASA/TSO 100 film.

• Stop-down metering

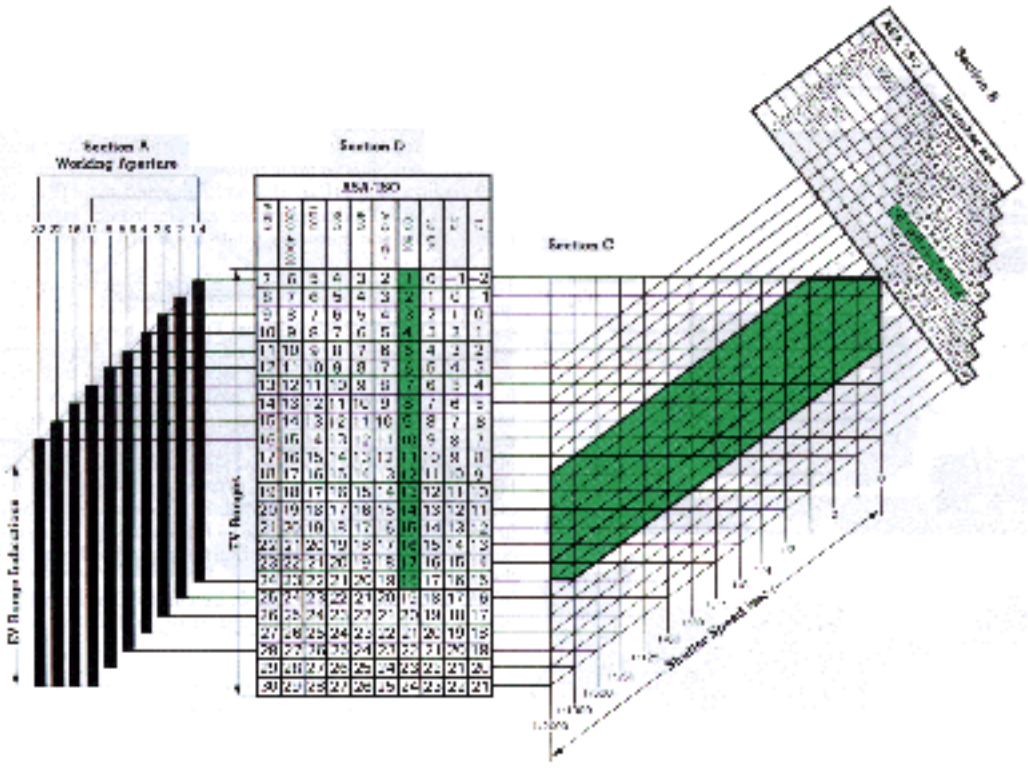
Example: ASA/ISO film speed 100
Stopped-down aperture f/8

The procedure is the same. The f/8 column in Section A and the EV values indicated for ASA/ISO 100 in Section D will show you that the EV range for f/8 is 6 to 23. Refer now to Section B and single out f/8 at ASA/ISO 100. Go diagonally down until the protruding line intersects with Section C's vertical line for the shutter speed of 8 sec. From this point of intersection, follow the horizontal line that leads to Section D's EV value for ASA/ISO 100, and you will obtain an EV reading of 3. This means that an f/stop of f/8 at ASA/ISO 100 and a shutter speed of 8 sec. give an EV value outside the metering range. To find out the slowest shutter speed usable, follow the f/8 indication for ASA/ISO 100 in Section B diagonally down until it intersects the horizontal line in Section C that leads to Section D's EV value of 6 for ASA/ISO 100, and you will find that the slowest shutter speed usable is 1 sec. In other words, at f/8 and ASA/ISO 100, the available shutter speed range that is within the metering range is from 1 to 1/2000 sec., which has an effective EV range of 6 to 17 (indicated by the broken line in Section C)—well within the metering range.

In practice, you will find that it is generally the high end and the low end which require a careful check. The EV range of the Nikon F3 High-Eyepoint camera encompasses most lighting situations, and it is only under dim-light or extra-bright picture-taking situations that you need pay any special attention.

EV Chart

This EV Chart indicates the performance of the F3 High-Eyepoint camera under normal temperatures and gives the usable ranges for all shutter speed/film speed combinations.



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* Credit: Shiro Malaysia, local distributor for Nikon Optical Products for providing this info, some parts of the manual was modified slighly to suit the PDF format.

The headquater of Nikon Corporation has a section detailing how to request for their Instruction Manual of various

optical products, the URL is here: http://www.nikon.co.jp/main/eng/faq-impe.htm
Information in this site was merely created for your quick reference. We strongly suggest you write to Nikon corporation for actual copy of the official manual.