



how to measure the UV index using a UV meter

The UV meter will turn on automatically when you go outside on bright days. Before you go, make sure the black sensor is clean. Use a clean cloth and methylated spirits if necessary.

- ◆ Hold the meter up, out of the shade, and record the UV Index, a measure of UV intensity. A sad face will appear on the screen if the intensity is more than 2.
- ◆ The UV meter will turn off automatically when you take it inside.
- ◆ The meter has a number of other functions, such as indicating how long you can stay in the sun. Please refer to the instruction manual (Section 4, pages 5-6) for more details.
- ◆ A spare set of batteries (CR24-30 lithium) is included in this kit.

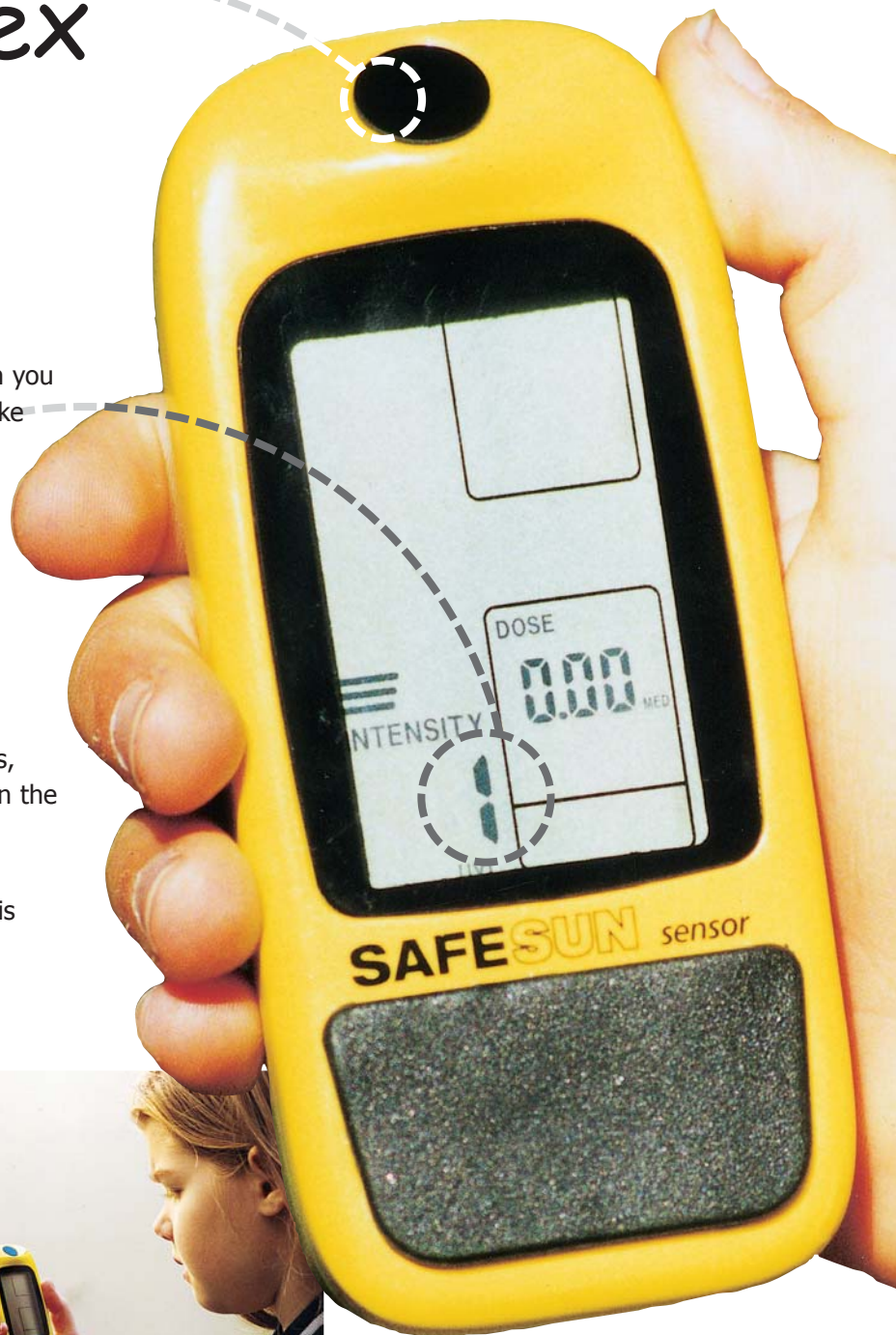
do's and don'ts

- ✓ Please take care of this expensive piece of equipment.

how it works

The UV meter measures ultra-violet light intensity, or "skin burning intensity".

- ◆ Ultra-violet light is not visible to the human eye. It has a shorter wavelength and more energy than visible light.
- ◆ As light enters the black sensor on top of the UV meter it is scattered. The light goes through a series of filters – glass and interference filters – that allow only UV light through. The UV light then hits a silicon photodiode which measures the amount of UV radiation.
- ◆ The digital unit turns the information into various measurements, such as how long a certain skin type can be safely exposed to the sun at that time.





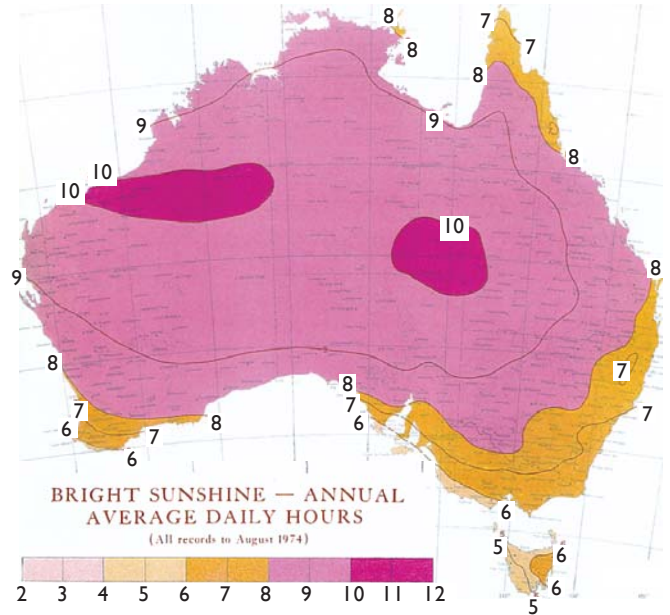
Ultra-violet radiation

Ultra-violet (UV) radiation emitted by the sun is short-wave radiation just past the blue end of the visible light spectrum.

UV radiation is often divided into three sub-sections – UV A, UV B and UV C. The earth's atmosphere blocks UV C radiation and all but a small amount of UV B, so the ultra-violet radiation at the earth's surface is mostly UV A and UV B. UV B is the most harmful for humans.

There are many important reasons to be aware of the UV radiation at the earth's surface:

- ◆ The risk of skin cancer grows with every sunburn.
- ◆ Protecting the skin during the first 18 years of life is likely to reduce the risk of skin cancer by more than 50 per cent.
- ◆ Doctors associate eye cataracts with UV exposure.
- ◆ You can sunburn even on cloudy days. In some cases, UV radiation can penetrate clouds, mist and fog.
- ◆ Staying in the shade does not provide complete protection. A lot of UV radiation does come directly from the sun, but some also bounces around as it is scattered by the atmosphere.
- ◆ Sunburn is not connected with the sensation of heat. You can still get serious sunburn in winter, despite feeling cold.



- ◆ Fresh snow reflects up to 80 per cent of the sun's rays. Snow, water and concrete "mirrors" significantly increase sunburn. Skiing enthusiasts should be particularly careful to protect their eyes and skin.

UV levels

UV Index:
 Danger category:
 SunSmart info:
 (the Australian Cancer Society)

More than 9
Extreme
 Extreme UV can cause unprotected skin to burn after just 12 minutes.

UV Index:
 Danger category:
 SunSmart info:
 (the Australian Cancer Society)

7 to 9
Very high
 UV radiation can still be very high on days when there are clouds. Don't be fooled by a cloudy sky.

UV Index:
 Danger category:
 SunSmart info:
 (the Australian Cancer Society)

3 to 6
High
 If levels are high, most people can get a nasty sunburn even when the temperature is less than 27 degrees Celsius.

UV Index:
 Danger category:
 SunSmart info:
 (the Australian Cancer Society)

Less than 3
Moderate
 Moderate UV levels can still be present when it is cold, such as at the snow.

