





## About electronic and mechanical shutters

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### So, why switch off the mechanical shutter?

As 24P has a slow frame repetition in comparison to PAL or NTSC video, it is not necessary to switch the shutter off when shooting CRT screens. Shooting CRT's with the Viper FilmStream Camera has the advantage that CRTs can be "shot" directly by simply "tuning" the exposure time / Shutter Angle even when the mechanical shutter is on.

So, the only remaining reasons to switch off the mechanical shutter are:

- ? To gain some sensitivity because the shutter angle can then be increased from 316 to 353 degrees
- ? To create more motion blur
- ? To get a full-frame exposure to derive super-motion speeds in post. For example, suppose you want to get double-speed pictures with 180 degrees effective shutter angle. Then you expose at maximum shutter angle, and only use every odd frame to create a new sequence that has exactly the same look as a 12 frame per second camera at 180 degrees shutter angle. In the same way, 6, 3, 2, 1 frames per second cameras can exactly be simulated.