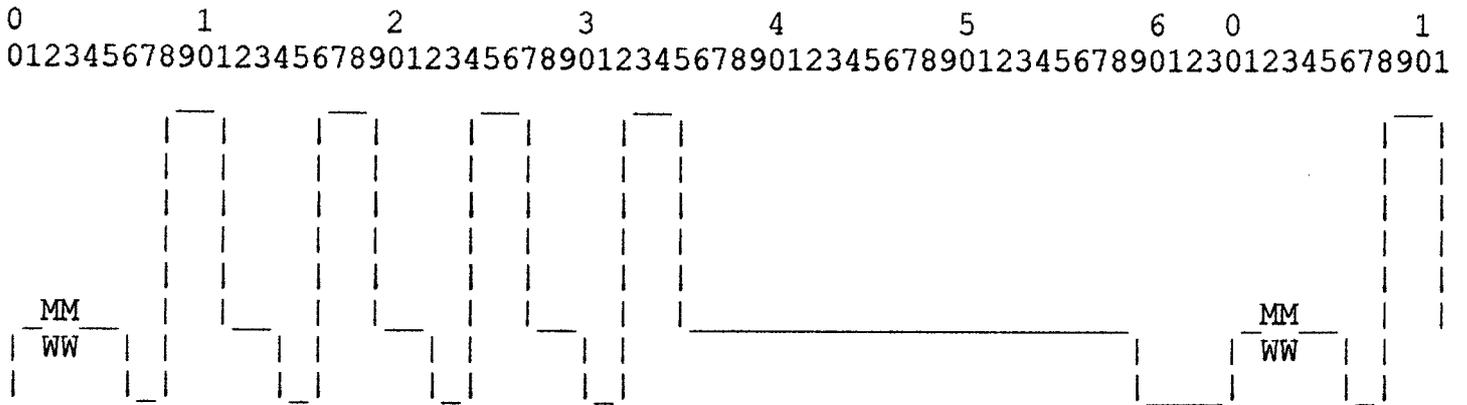


11) Picture 5 - NTSC Macrovision line



The lines drawn above are quite similar. Both try to present false synchronization pulses to the VCR the first 40 microseconds or so. The rest of the line is black, because false syncs there would trigger the sync circuits in monitors/TVs and consequently the top of the picture would be very unstable. Some TVs really do suffer even now, I have seen it myself.

But that is not all. If the pulses had a constant amplitude, it would be quite easy just to increase the amplitude of the video signal and get a decent picture. Therefore the false back porch voltage level is varied according to some simple rules in order to get the brightness changes as annoying as possible.

The following pictures show, how the false back porch amplitudes change with time. The lowest level is black, the highest is "super-white". The false syncs (below black level) do not change their amplitude. The perceived brightness of the TV picture is the inverse, e.g. the highest level in the diagram means the darkest picture on the screen.

12) Picture 6 - Pulsating cycles, PAL

