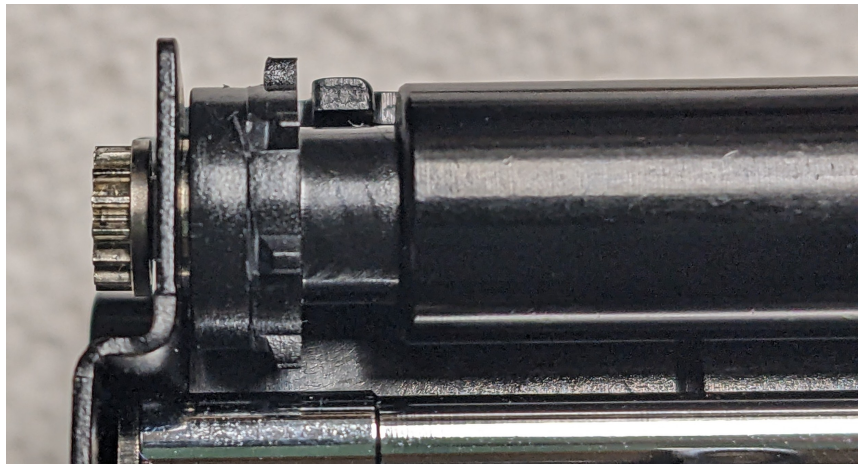# PENTAX 645 70MM BACK: 65MM MOD

This back can't be modded to all-perf, due to the stiffness and small diameter of its frame counting roller.  It can, however, be modified to accept 65mm film, *using the 65mm film perforations to move the existing sprocket*.

This modification does not affect standard 70mm double-perf functioning.

1.  Choose one side of the frame counting cylinder to modify.  Illustrated here is the right side.  You only need to modify one sprocket, on the side of your choosing.



2.  Using an X-acto or similar sharp knife, cut each tooth in the sprocket by 1/3 to 40%: cut down, at a slight angle, and the cut section of the tooth will snap off.  Cut the *outside* section of each tooth (i.e., the section near the edge of the back).



That's it!  Your back will now accept 70mm double-perf (Type 2) film as well as 65mm motion picture film.

To shoot with 65mm film, you will need the Mercury 65mm Cassette Spool set, Max-Offset version.  Use these spools, inside standard 70mm metal cassettes.  However, be sure that you load them in the cassettes such that the thin side of the spool is on the side of your 70mm back with your modified sprocket.

Loaded correctly, the 65mm film perforations should engage the teeth of your sprocket:



Note that this will give you 3.8mm less image area than 70mm film on the non-modded side (the image will be recorded, but perforations will run through it).

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