

SWITCH TIME PENCIL No. 10

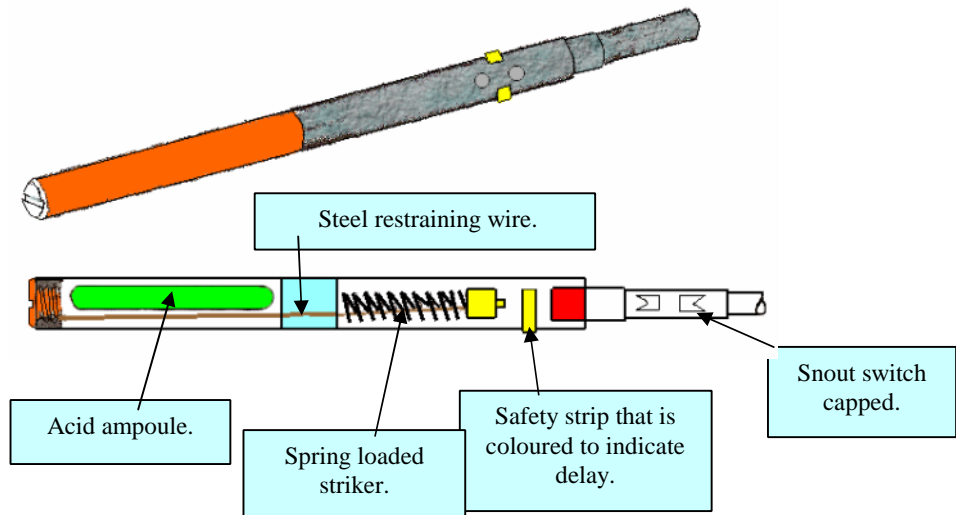
This item is much loved by film industry which doesn't believe in letting reality get in the way of a good visual story. This item is usually shown in movies working with split second accuracy. The truth is far more flexible as an extract from a technical manual of the time reads:

“The switches are critically influenced by temperature and tests have shown that a $\pm 50\%$ error can be anticipated”

Having said that though, the things do work as intended.

The delay is provided by the action of an acid on a copper wire that is restraining a spring loaded striker. The delay is dependent on several factors.

1. The strength of the acid,
2. the thickness of the wire and,
3. The temperature of the acid.



ACTION

The item is connected to an explosive charge and the safety strip is removed. The end containing the acid ampoule is crushed thus releasing the acid which commences corroding the copper wire. The pressure exerted by the striker spring eventually snaps the corroded wire allowing the striker to hit the percussion cap. The flash from this is passed either into a piece of fuze instantaneous or a detonator.

The delay that could be expected was indicated by the colour of either the safety strip or the addition of coloured bars on the body of the switch. The colour code of the safety strips was as follows:

Black – 10 minutes
Red – 30 minutes
White – 2 hours
Green – 5 hours
Yellow – 10 hours
Blue – 25 to 30 hours.



No 10 time pencils showing clearly the delay indication markings.



An example of the capped switch that could be used with the time pencil.



Standard service pack for the No. 10 time pencil.