



Standard electric torches modified for infrared signaling. The only visible difference between the receiver unit (left) and transmitter unit (right) was a small opening in the bottom of the receiving unit for inserting an external earphone.

DATA SUMMARY

Organisation: MfS HVA

Manufacturer: OTS

Year of Introduction: Unknown, probably 1970s.

Purpose: Secret border crossing signalling.

Power Supply: Dry batteries: receiver 9V; transmitter 6V.

Size (cm): Height 3, Length 10.2, Width 6.7.

References:

- Photographs and all information courtesy Detlev Vreisleben, DC7KG, Germany.

REMARKS

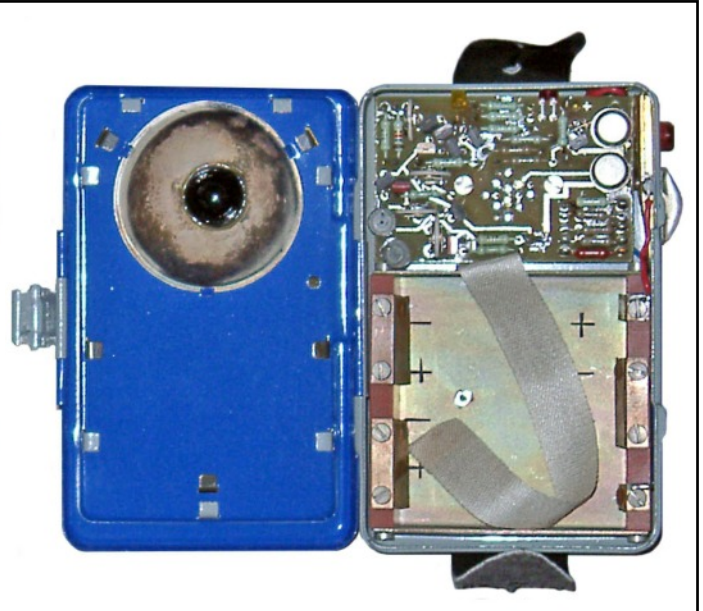
Smuggling GDR agents and material across the closed border from East to West and vice versa was a risky enterprise. A simple visual light signalling for clearing was found unsuitable as it would give away the operation in progress. A simple and inconspicuous communication system was therefore required, which could not be easily intercepted.

This ruled out the use of radio, and infrared appeared to be a solution. A system of two devices was developed: a transmitting unit for giving a 'clear' signal when the crossing was safe, and a receiving unit for the crossing person or party. This system, known as 'Signalgeber für Grenzschleusungen' (Signalling device for border crossing) was comprised of two innocent looking standard electric torches, internally modified for receiving or transmitting infrared signals.



Infrared receiving unit.

The receiver consisted of an infrared photocell behind a dark filter connected to an AF amplifier. The 1000Hz signal was made audible on a built-in miniature earphone, or an external earpiece. The round white object, close to the built-in earphone at the right, was a miniature volume control.



Infrared transmitter unit.

The transmitter was believed to be a 1000Hz oscillator, driving infrared diodes via an AF amplifier. Nine IR diodes were mounted directly on the circuit board. Keying the signal was by means of the red push button at top right. The transmitter was powered by four penlight batteries.