



Kopchik
Country of origin:
Russia

An overview of all currently known Russian covert VHF FM radios is provided in Appendix 3.

DATA SUMMARY

Organisation: Warsaw Pact Intelligence Services
Design/Manufacturer: Russia.
Year of Introduction: 1970s.
Purpose: Covert close proximity receiver.
Receiver: Aperiodic with particular response in the 150MHz and 420MHz bands. Mixed with a square wave of 2kHz (CW or FM) or 20kHz (AM).
Power Supply: Internally fitted rechargeable NiCad battery, or an external 4.5 - 7.4V battery.
Accessories: Miniature covert speaker, a flexible wire aerial and a flexible dipole aerial, remote control unit, external battery and cloth harness. Optionally a miniature tape recorder.
Size (mm): Height 93, length 72, width 25; Weight: 280g.

REMARKS

Kopchik (Russian = Копчик), translated into English as Tailbone or Coccyx, was a miniature body wearable covert receiver. It was used for close proximity reception and detection of nearby adversary agent to agent communication. When a signal was received a 2kHz tone was produced by a miniature lapel speaker, alerting to the agent to be cautioned and divert or cancel the operation. The receiver was aperiodic but with an enhanced frequency response in the 150MHz and 420MHz bands, selectable for wideband (90kHz) or narrowband (25kHz) using two separate aerial sockets. It was carried in a pocket of the coat, or in a special cloth harness on the body, operated by a small hand operated remote control unit, of which the cable to the receiver was guided through a sleeve of the coat. A rechargeable battery was clipped in a compartment at the right hand side, although Kopchik could also be externally powered via a socket on top marked ПИТ = Pitaniya (Supply). *When this chapter was prepared, no information on the application and principle of its operation had been found. In this updated version were added condensed parts of reverse engineering investigations of a Kopchik by the Crypto Museum. For a full account with more photos and a block diagram, please have a look at the Crypto Museum website.*



Kopchik receiver with remote control unit and two different wire aerials. Note a small attenuator box in the dipole feeder which was used when limited DF function was required.



Rear view of a Kopchik receiver and associated remote control unit. Note a CW-FM/AM mode switch at the back of the remote control unit.

Right hand circuit board opened showing two rows of RF band pass filter coils.



References:

- The photos were derived from Internet sources of which the source and confirmation was not available at the time of writing.
- With thanks to the Crypto Museum. www.cryptomuseum.com