

SRR-100
Country of origin:
USA

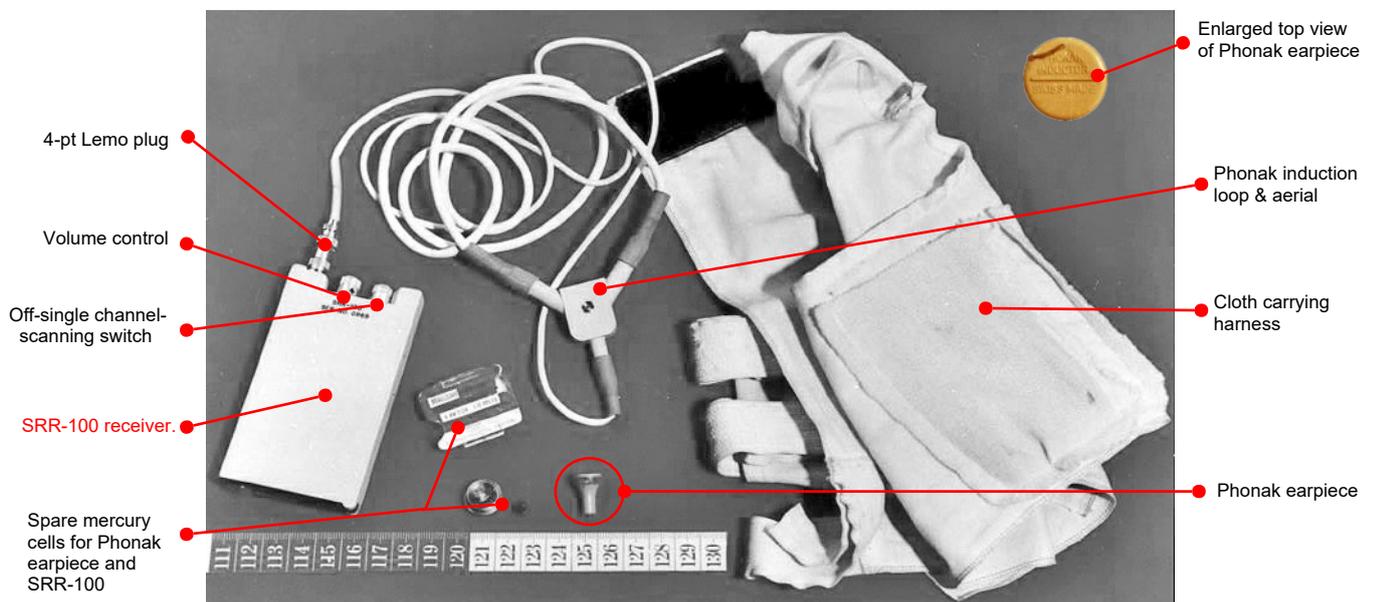
Remarks

The SRR-100 was a covert body-worn VHF-FM 6 channel scanner receiver, developed and built in the early 1970s for the US Central Intelligence Agency (CIA). It was used by agents during the Cold War for intercepting nearby scrambled radio communications of Soviet and other Eastern Block surveillance teams. The estimated range in an urban area, using a 100mW transmitter was up to 500m. A complete set was comprised of a SRR-100 receiver and an inductive loop for the Phonak wireless earpiece; it was normally worn in a cloth pouch on the breast or in a cloth carrying harness. The inductive loop acted also as an aerial.

DATA SUMMARY

Organisation: CIA, United States.
Design/Manufacturer: Not known.
Year of Introduction: 1973.
Purpose: Body-worn agent scanning radio receiver.
Receiver: Single conversion VHF FM superheterodyne, crystal controlled, 6 channels.
Frequency coverage: 6 channels in the range 101.8 to - 103.4MHz. 50kHz channel spacing.
Intermediate frequency: 17.9MHz; crystal filter.
Sensitivity: 0.16µV for 10dB s/n; 0.3µV for 20dB s/n.
Frequency deviation: Nominal 7-10kHz.

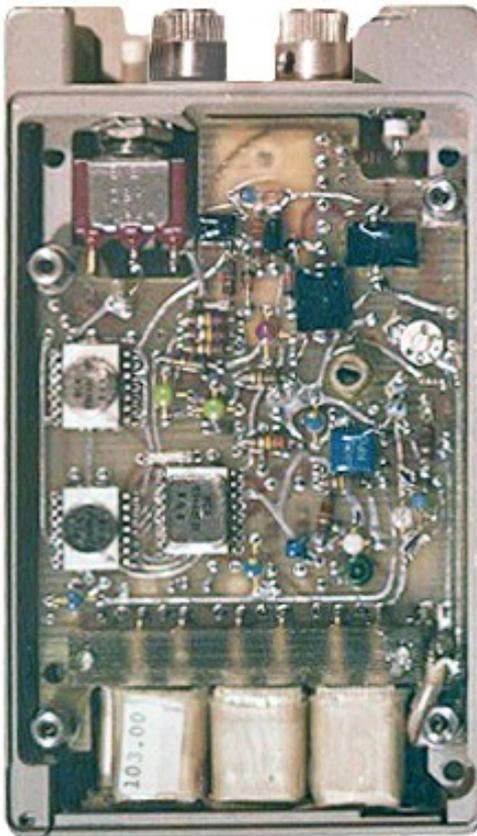
AF output: maximum 100mW into an inductive loop carried around the neck. *Speech inversion scrambling.* Inversion carrier 3050 Hz ±20Hz.
Inductive wireless Phonak earphone powered by a RM 212 mercury battery. Consumption 500µA.
Aerial: The inductive Phonak loop was also used as aerial.
Power Supply: Two RM-625 mercury cells connected in parallel. Consumption 2½ - 60mA. (depending on the setting of the AF gain) with a life of 3-10 hours.
Size (mm): Height 96, length 12, width 54.
Size Phonak earpiece (mm): Height 18, diameter 12/5.





Close-up photograph of an SRR-100 receiver (as pictured in large format on the previous page) taken from a captured USA agent by the KGB. Note the Phonak hearing aid type earpiece and two small plastic containers with spare mercury cells.

A selection of equipment found in possession of US agents by the KGB during the Cold War. Apart from three commercial shortwave radio receivers, and amongst a variety of objects which concealed spy related objects, was a SRR-100 receiver.



Internal view of an SRR-100 receiver showing the logic board (the RF board was located at the opposite side) with components for scanning of the 6 crystal controlled channels. The easily changeable crystals were located at the bottom of the board. There were three controls on top of the SRR-100 comprising a volume knob at the right, an off/single channel/scanning switch knob and a push button at the left which toggled manually the channels in single channel mode. Located at the right hand side was a 4-point Lemo socket for connecting an inductive loop, carried around the neck, for the Phonak earpiece. The loop served also as an aerial.

It is not yet known which model or type radio was used by the surveillance teams.

References:

- Colour photographs, Stasi reports and detailed technical information Detlev Vreisleben, Germany.
- BStU archives, MfS-Abt.26 Nr 1939. Stasi reports on KGB captured US agents communication equipment.
- Report on a custom made receiver used by US agents. A Soviet report translated into German. Stasi 'Mitteilung 726/78', Jun. 78.
- Photo's and information courtesy Cryptomuseum, Holland; related operational history see www.cryptomuseum.com