

Signal 3
Country of origin:
Russia

DATA SUMMARY

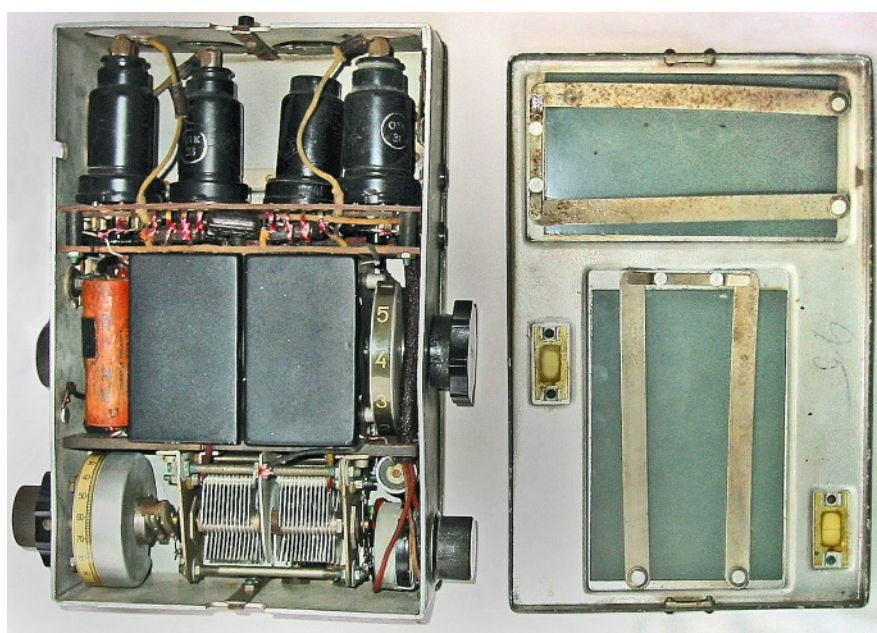
Organisation: GRU.
Year of Introduction: 1941.
Purpose: Agents.
Receiver:
Signal 3: RF, detector with reaction, AF stage 2x.
AM R/T and CW.
(Signal 1: RF, detector with reaction, AF stage 2x).
(Signal 2: Mixer, LO, regenerative IF, AF stage).
Frequency coverage: 2-21MHz in 5 ranges (Signal 3)
Valves: Signal 3: 6K7 (3x), 6C4.
(Signal 1 and 2: 6K1 (2x), 6C1 (2x))
Power: Separate power unit. 110-250V AC mains.
Size (cm): Height 6.5, width 18, depth 22.
Weight: 1.7kg. Complete set 2.5kg.

This Supplement chapter is a follow up and should be read in conjunction with the 'Signal' section in the 'USSR' chapter of WftW Volume 4 for more information, and Chapter 327.

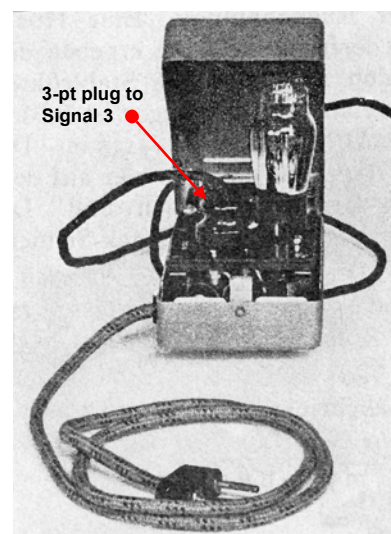
REMARKS

Signal 3 (Russian = Сигнала) was a miniature short wave receiver recorded to be issued with the type 'Jack' (Russian=Джек) transmitter. Four variations of the receiver were noted of which only Signal 1 and Signal 3 could be positively identified. The calibrated curves of the tuning scale were attached on the top cover.

- Signal 3 was a TRF with a tuned RF stage, detector with reaction and two AF stages. It had five frequency ranges. The four steel type valves in this version were manufactured in a Russian plant.
- Signal 1 was a TRF with aperiodic RF stage, three frequency ranges, regenerative detector and two AF stages (see Chapter 327).
- Signal 2 was believed to be a superheterodyne with reaction IF, using four Russian made acorn tubes. It possibly covered only a single frequency range. No details were found on Signal 4 at the time when compiling this chapter.

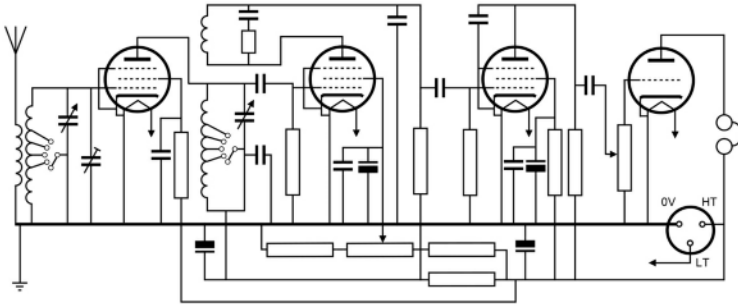


Internal top view of Signal 3. Tuning condenser with speed reduction drive at the bottom; coils with frequency range switches (in two black boxes) in the centre, and the four valves at the top.

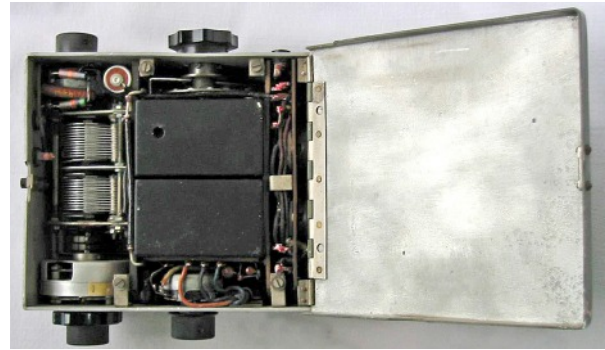


AC mains power supply unit. The rectifier valve was removed when not in use.

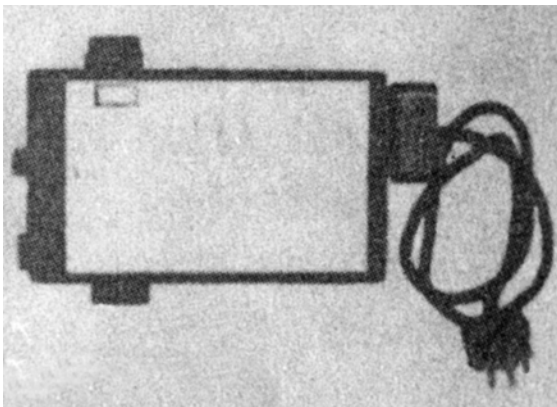
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Circuit diagram Signal 3.

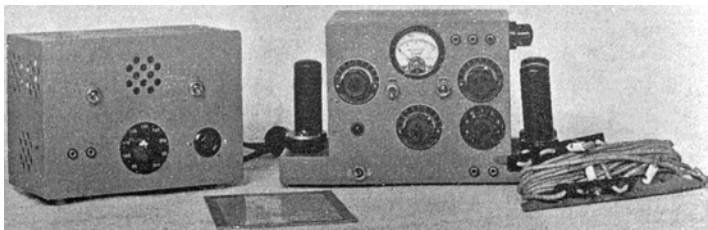
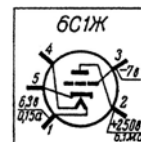
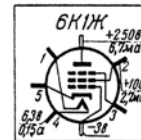
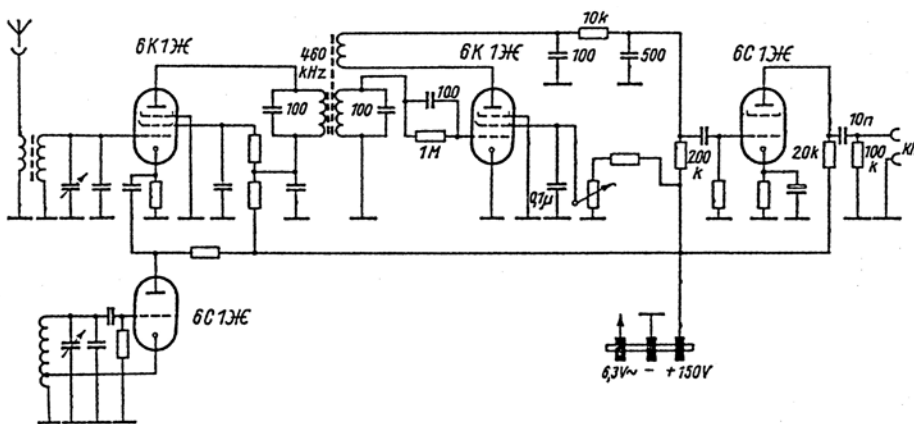


Bottom view of Signal 3.



Signal 2

Signal 2 had only two controls: tuning and reaction/volume. Power was provided via a 3-point connector and plug at the top of the receiver. The receiver circuit was a single range superheterodyne with a separate local oscillator and IF with reaction. It was probably not based on the popular 1936 'super gainer' design as the IF was indicated as only 455kHz in the (later drawn) circuit.
(Information of the Signal 2 must still be confirmed and more information is requested).



'Jack' transmitter with associated power pack.

References:

- Photos and information Alexander, Donesk, NDR.
- Der Funkpeilung der kurzen Wellen, Volume 1, Hauptamt Ordnungspolizei, Berlin, 1943.
- Forum.QRZ.ru: Агентурная радиосвязь (Agent radio), 2012. Wladimir, (RW4HO).