#### Wireless for the Warrior - Volume 4

### **Supplement, Chap. 110** - 1



# AT/1 Country of origin: Polish in England

#### DATA SUMMARY

Organisation: Polish Home Army (Armia Krajowa); SOE.

**Design/Manufacturer:** Polish Military Wireless Research Unit, Stanmore, England. (Polski Wojskowy

Warsztat Radiowy)

Year of Introduction: Probably 1944.

Purpose: Agents, partisans, resistance, SOE.

Transmitter: Based on the NP-3A.

Circuit Features: Crystal oscillator/RF power amplifier.

CW only.

Frequency Coverage: 3.5-9MHz.

Valve: 3A5.

Receiver: Based on the OP-3.

Circuit Features: Mixer/osc, regenerative IF, det/AF,

AF. AM R/T and CW. Frequency Coverage:

Range 1: 0.6-1500kHz (200-500m).

Range 2: 2-5MHz. Range 3: 5-12MHz.

Valves: 1R5, 1T4 (2x), 1S5.

**Power Supply:** 1.4V LT (three D cells in parallel), three 67½V HT batteries, 2 in parallel for rx; 2 in series for tx.

Size (cm): Height 11, length 271/2, width 13.

Accessories: Wire for aerial (dipole) and earth, crystals,

headphones, spare batteries.

This supplement chapter replaces the 'UB' section in the 'Poland' chapter of WftW Volume 4.

#### REMARKS

The AT/1 was a self contained miniature transmitter receiver developed and built in WW2 by the Polish Military Wireless Research Unit in Stanmore. The set was principally a combination of the Polish OP-3 receiver and NP-3A transmitter (See the 'NP-3', 'OP-3' and 'UB' sections in the 'Poland' chapters of WftW Volume 4), housed in a single enclosure, complete with batteries and built-in Morse key.

The AT/1 transmitter had symmetrical terminals for connecting a dipole aerial, a feature found in all the Polish agents radios developed in England. 287 units of the OP-3 receiver were reportedly produced but only a small number of the NP-3 and NP-3A.

Of the very rare AT/1 a few dozen were made according to one source. The set was described in 'Adversary Agent Radios', a CIA document which was used to prepare the 'UB' section in WftW Volume 4 in 2004, only recently found that the document had incorrect information.

An AT/1 variation without built-in Morse key is noted, based on the design of the set described in this chapter.



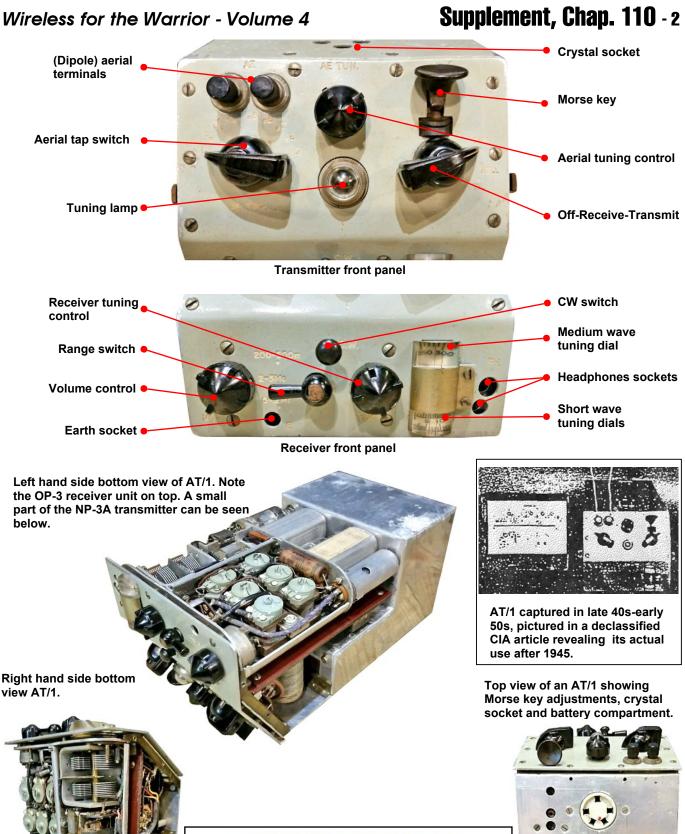
General view of the AT/1 removed from its enclosure.



AT/1 with protective front panel cover fitted, ready for transport.

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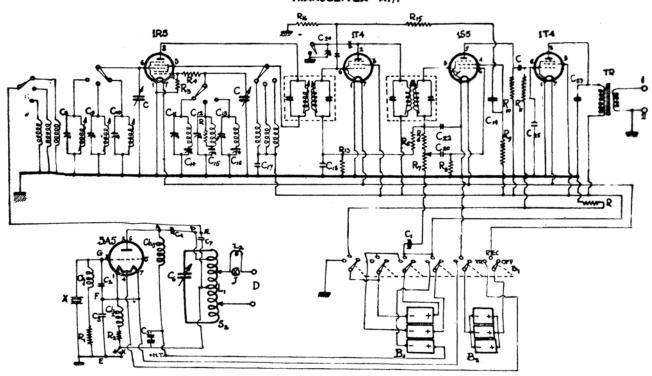


Original OP-3 receiver with Polish language engravings. Apart from different knobs and less enclosure it was similar to the unit which was fitted in the AT/1.

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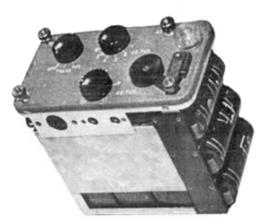
#### TRANSCEIVER "AT/1"



Circuit diagram of AT/1; the (OP-3) receiver on top, and the (NP-3A) transmitter with batteries below. The 1.5V batteries were permanently connected in parallel; the 67.5V batteries in a bank of two in parallel for receive, and a bank of two in series during transmit.



Variation of the AT/1. There is no built-in Morse key; positions of controls and sockets differ.



Original NP-3A transmitter with cover detached.

#### References:

- Photographs courtesy eBay seller 'Francis Kay Vintage', Exeter, South Devon, UK.
- Photo of an OP-3 receiver taken by Mike Willenbroek, Holland.
- 'Adversary Agents Radios' by James J. Fauth, *Studies in Intelligence*, pp 60, Vol. 10 (Winter), 1966. This article was declassified in 1994.
- Photographs AT/1 variation, NP-3A and circuit diagram courtesy Bogdan Szkudlarek, SP3LD, Poland.

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