

OSB Type I
(Armia Krajowa # 2)
Country of origin:
Poland

Corrections to the OSB section in the 'Poland' chapter of WftW Volume 4:
- The circuit diagram is that of the OSB type I.
- In the photo is an OSB type II.

This Supplement is a follow up of the 'OSB' section in the 'Poland' chapter of WftW Volume 4.

REMARKS

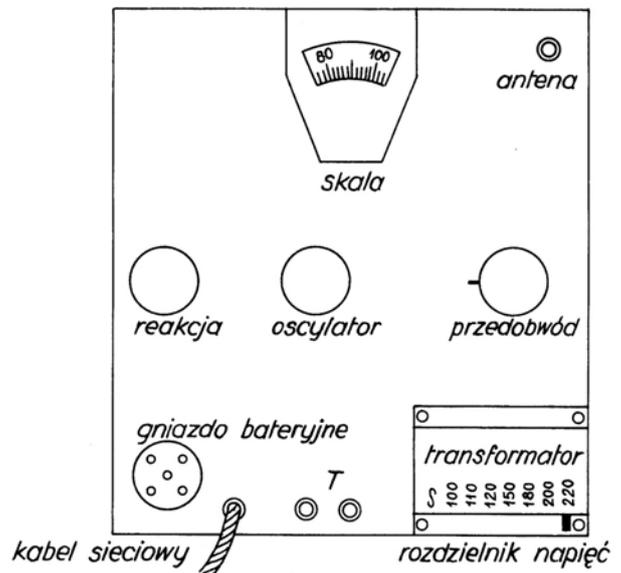
The OSB type I (Odbiornik Sieciowo-Bateryjny, translated Mains-Battery Receiver) was a miniature short wave receiver, a follow up of the OBAs receiver (Chapter 291). It was made in clandestine radio workshops, including the Warsaw University of Technology, from 1942 onwards for the Polish Home Army. The receiver was built into a metal case which resembled a small innocent looking toolbox. The circuit, using locally available components of which e.g. the valves were 'liberated' from the Tungstram and Philips plants in Warsaw, was believed to be a copy of the Polish A1 receiver, designed by Tadeusz Heftman, produced in England by the Polish Military Wireless Research Unit in Stanmore. There were two (functionally similar) versions: OSB type I and OSB type II which differed considerably in the mechanical construction, layout of the front panel and circuit diagram. Only one OSB type I survived, opposed to the OSB type II of which at least 2, and probably 3 still exist. OSB type I was apparently also known as OSB3 according the working instructions text on the photo.

DATA SUMMARY

Organisation: Polish Home Army (Armia Krajowa).
Design/Manufacturer: Clandestine Polish Home Army Radio Workshops e.g. Warsaw University of Technology.
Year of Introduction: 1942/43.
Purpose: Communication receiver for the Polish Home Army.
Receiver OSB Type I:
Frequency coverage: 3.5 - 9MHz. IF 1.5MHz.
Circuit features: Mixer/oscillator, Reg. IF/Det, AF.
 It was based on the 1936 'Super-Gainer' design. The IF valve could be brought into oscillation for CW reception by means of the reaction control.
AF output: High impedance headphones.
Valves: ECH11 and EDD11.
Power Supply: 100/110/120/150/180/200/220V AC mains; Rectifier using an 6H6 or EZ11.
 As alternative, separate power (Batteries or a 6V DC vibrator power pack) could be connected to the 5-point socket front panel after removing a dummy plug.
Dimensions (cm): (An estimate!).
 Height 7½, length 17, width 15.

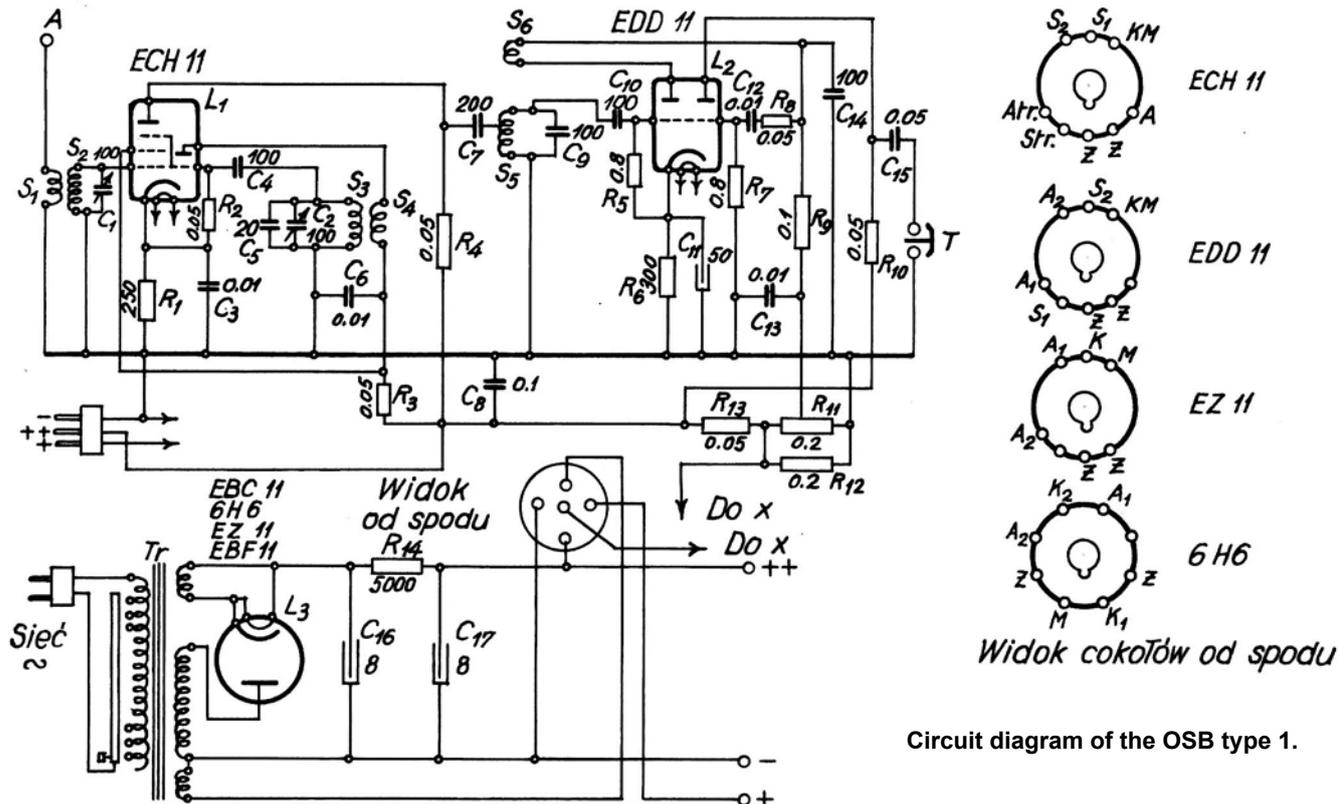
References:

- Photograph, drawing, circuit diagram and additional information courtesy Bogdan Szkudlarek, SP3LD, Poland.
- *Zolnierze Lacznosej Warszawy* (Communication soldiers of fighting Warsaw), Kazimierz Malinowski, Warszawa 1983, isbn 83-211-0378-2.
- *Wireless for the Warrior, Volume 4, Clandestine Radio*, Louis Meulstee, Wimborne 2004, isbn 095263 36 0.



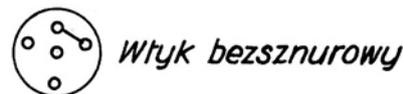
Kabel sieciowy	Mains lead
Antena	Aerial socket
Gniazdo bateryjne	Battery socket
Skala	Tuning scale
Rozdzielnik napięc	AC voltage selector
T	Headphones sockets
Reakcja	Reaction control
Oscylator	Tuning control
Przedobwód	Pre-selector tuning

Text translation functions of controls OSB type I.



Circuit diagram of the OSB type 1.

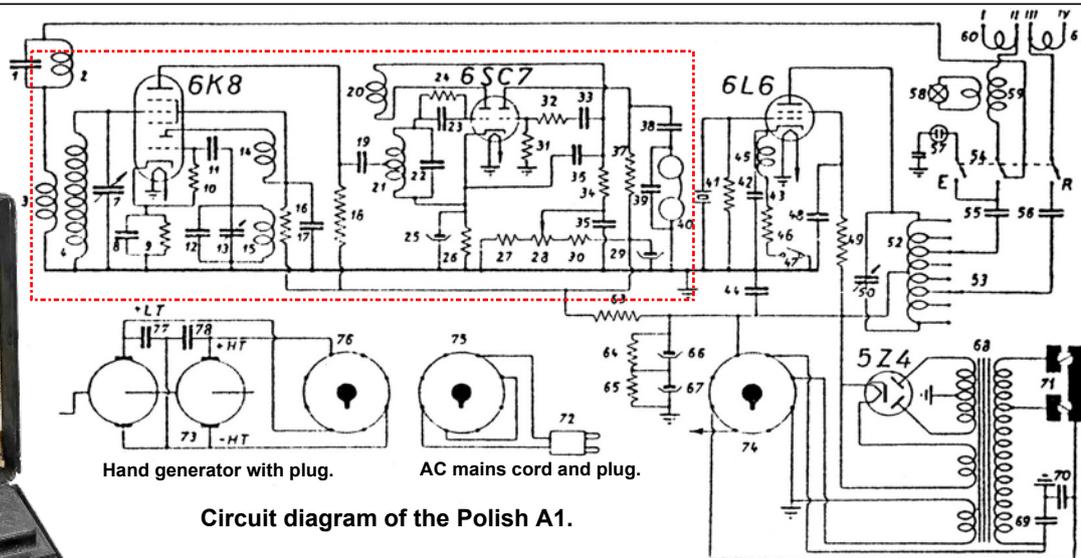
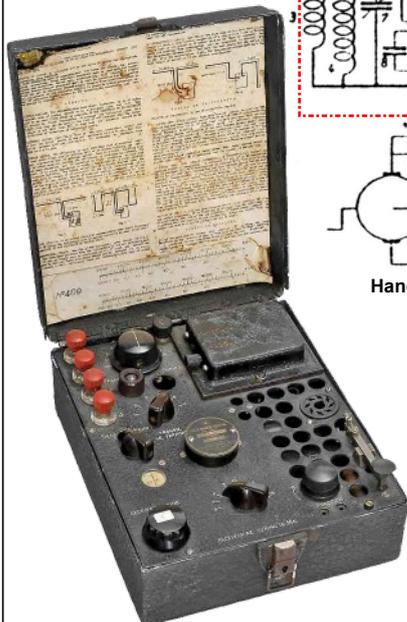
(Wtyk bezsznurowy) Dummy plug inserted into socket for AC mains operation. It connected the 6.3V AC from the built-in mains power unit to the filaments. When powered by a 6V accumulator this link was disconnected.



(Wtyk bateryjny) Battery plug and connection leads to a 6V accumulator (+/- A) and a HT dry battery (+/- B). As the voltage of a battery was much lower as that of the built-in mains power unit, R13 was shorted by the 'Do x' contacts in the plug, resulting in an almost equal performance.



Polish A1



Circuit diagram of the Polish A1.

The Polish A1 transceiver (left), produced in England by the Polish Military Wireless Research Unit in Stanmore, was based on pre-war agents sets designed for the Polish Second Bureau by AVA, with chief designer Dipl Ing Tadeusz Heftman.

It is believed that the OSB type I and type II receivers (and indeed the OBAs and OSU) were constructed after the receiver section of the Polish A1 (and its pre-war developments), which were in turn based on the 'Super-Gainer' circuit from the 1936 Jones 'Radio Handbook'.