



## Telegraph Transmitter

### KR 1000

Country of origin:  
Polish in England

This Supplement chapter is a replacement for the 'KR 1000' section in the 'Poland' chapter of WfW Volume 4.

### Remarks

KR 1000 high-power base transmitters were individually built by the Oddział Radio Sztabu Naczelnego Wodza; later Batalion Łączności Sztabu Naczelnego Wodza (Polish Radio Centre; later Polish General HQ Signals; Stanmore, England).

The KR 1000 high power transmitter (also known as Telegraph Transmitter KR 1000) supplemented the existing British- and US-made transmitters used by the Polish to send clandestine messages into their country during the war. A total of five KR 1000 transmitters were built (3 sets by 1943, one in 1944 and one in 1945) serving the Polish Army Signal Corps in Great Britain. The transmitters were located in the Kings Langley area, Herts. (at Chipperfield and Barnes Lodge) and at Conington near Cambridge.

Looking to the available information it appears that the basic designs of the three versions were similar, but the practical approach differed considerably, for instance, the 'A' version (see photo left) had band-switching in the oscillator and multiplier stages, whilst the 'B' and 'C' version employed four sets of plug-in coils.

In order to operate the transmitter properly, the intended frequency crystal and a set of coils (for the later 'B' and 'C' versions four sets of 4 coils) were necessary. The transmitter warm-up time was about one minute. The tuning process, although complicated, was achieved promptly. The KR 1000 was considered the most suitable transmitter e.g. at Kings Langley, since it could be tuned into various antenna loads, and was usually remotely keyed. It is believed that the KR 1000 was used with the Telma (SSR) burst telegraphy equipment for communication between England and Italy.

The KR 1000 was perfectly suited for long-range communications on behalf of the Polish VI Bureau, which maintained communications with the Resistance in occupied Poland, as well as the Polish Ministry of Foreign Affairs, Ministry of Defence and Interior Ministry, as well as the II Bureau (Deuxieme Bureau) with their posts and networks world-wide.

### DATA SUMMARY

**Organisation:** Oddział Radio Sztabu Naczelnego Wodza.

**Design/Manufacturer:** Designed by Captain L. Góralski, Polish Military Wireless Research Unit, Stanmore, England. (Polski Wojskowy Warsztat Radiowy).

**Year of Introduction:** 1943.

**Purpose:** High power base transmitter.

#### Transmitter

**Circuit Features:** Crystal oscillator, multiplier, push-pull RF power amplifier. CW only.

**Frequency Coverage:** 3.6-16MHz in 4 ranges: 3.5-5; 4.9-6.6; 6.4-10.8; 10-16MHz. Frequency doubling was employed in the 8-16MHz range.

**RF output:** 1000W. (Probably more in the 'B' version).

**Valves:** Initial 'A' version: 6L6G, 807, 814 (2x), 866A (2x), 5Z4 (2x); 'B' version: 6L6 (2x), 814, HF300 (2x), 866A (2x), 5Z4 (2x); 'C' version: 6J5, 807, 813, HF300 (2x), 866 rectifier, 5Z3 (2x), 80, VR150, 6H6.

**Constructional details:** The transmitter had a modular chassis construction, including a built-in AC mains power supply.

**Power Supply:** 240V AC mains.

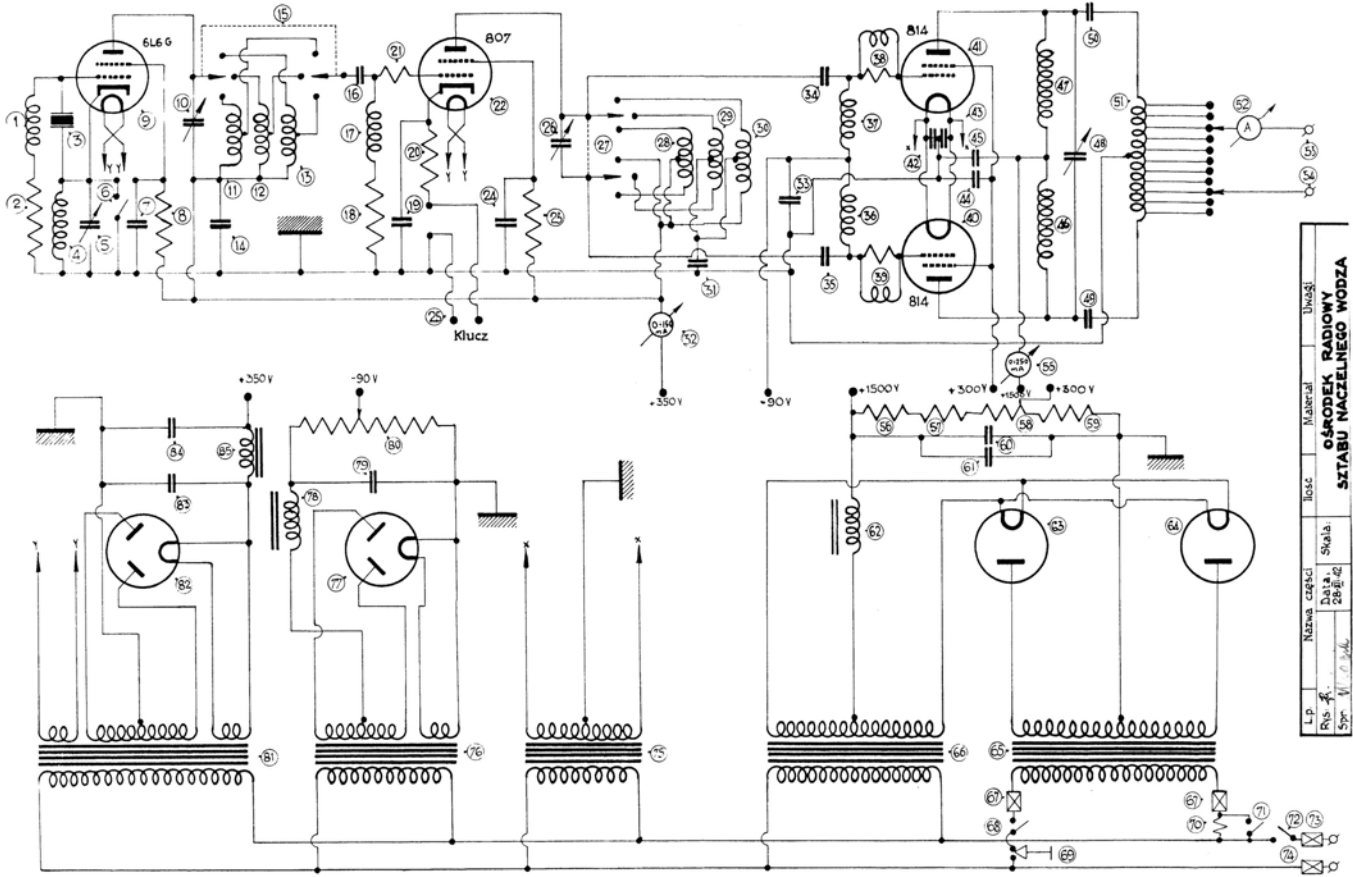
**Size and weight:** Not yet known.

**Aerial:** Various fixed e.g. dipole or directional.

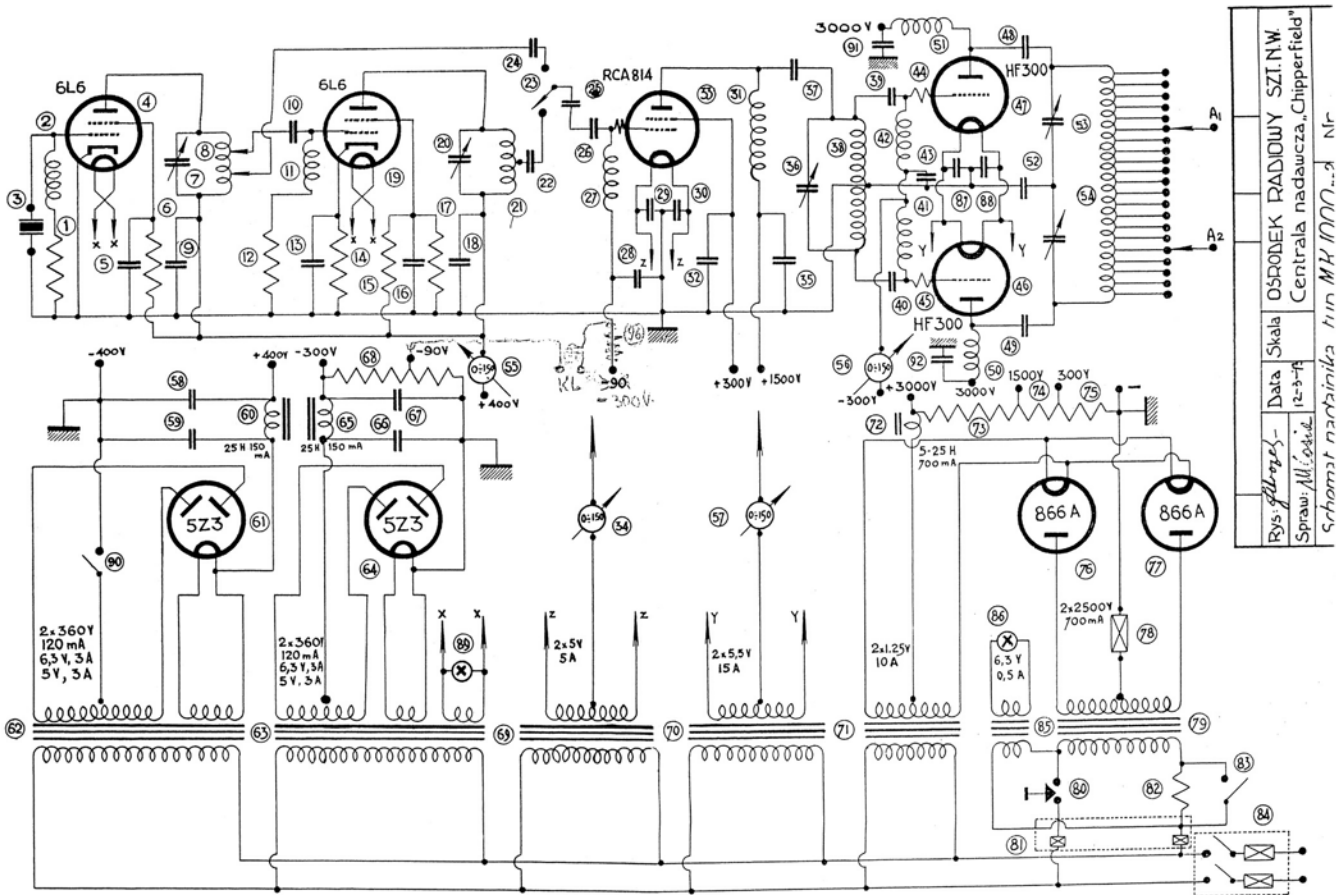
**Accessories:** Hand speed Morse key. Remote keying was possible.

### References:

- Photograph of the KR 1000 taken in 1990 by Ronald Evers in The Polish Institute and Sikorski Museum, London.
- Instrukcja. Nadajnik KR 1000/C/MK, Kompania Radiotelegraficzna, Oddział Radio Sztabu Naczelnego Wodza, n.d. (Instruction manual in the Polish language).
- 'Dziękuję wam rodacy', Polska Fundacja Kulturalna, London 1973 (In the Polish language).
- Translation of Polish documents Dr. Jan Bury, Warsaw.
- Original Instruction Manual held in the collection of the Royal Signals Museum, Blandford Forum, UK.



Circuit diagram of Polish base transmitter KR 1000, 'A' version dated Dec. 1942. Design modifications and improvements were carried out in later versions



Circuit diagram KR 1000, 'B' version.