

Replicas of the 'Tin can' radio were built by Werner Bösterling (left) and Hans Necker of the 'Internationales Radiomuseum Hans Necker' (below) where it is currently on display.

PoW radio # 5

'Konservenbüchsen' radio
('Tin can' radio)

Country of origin: Russia

DATA SUMMARY

Design/construction: German PoWs in Russia.

Year of Introduction: 1945.

Purpose: Listening to the news from home.

Receiver: Single valve TRF with inductive reaction.

Frequency coverage: Medium wave.

Valve: RV 12 P 2000.

Coils: 7cm diameter, (L_e, tuning, 30 turns and L_r, reaction, 45 turns); 0.5mm enamelled copper wire.

Headphones: High impedance 2000-4000 Ω.

Power: 12V accumulator.

Aerial: 3-10m disguised as a washing line.

Size (cm): Height 14, width 35, depth 17.

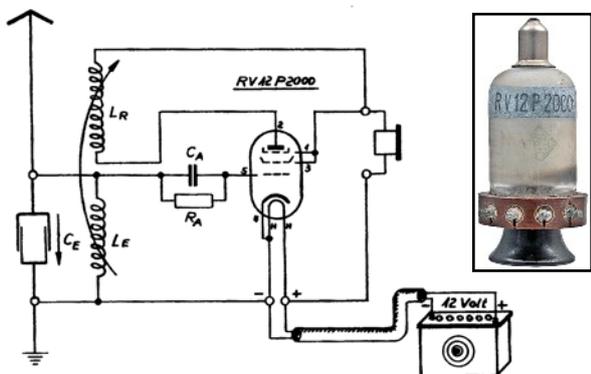
Weight: 1.2 kg including headphones.



Remarks

While laboring in the field in 1945, German prisoners of war in a Russian PoW camp recovered an RV12P2000 radio valve from a destroyed Wehrmacht truck. With the headphones from a flight cap found in a nearby aircraft wreck, a still usable 12V accumulator, and enamelled copper wire from a turn signal assembly of the destroyed truck, a radio receiver was constructed on a wooden breadboard. The grid leak resistor was made from a short piece of pencil; the fixed condenser from aluminium foil taken from discarded cigarette packs, separated by paper and wound with a few pieces of copper wire on a wooden stick. Two empty tin food cans which fitted snugly into each other and insulated with Field Post cards, produced a variable condenser with a range from 40 to 1500pF. During various transports to other PoW camps, the receiver and accumulator were hidden in horse drawn transport.

A fully functional 'Tin can' radio replica, as seen in the photo above, was constructed in May 2006 by Werner Bösterling, resulting in his article in GFGF 'Funkgeschichte'. It was based on a similar replica built in the 1970s by Hans Necker of the 'Internationales Radiomuseum Hans Necker' in Bad Laasphe, Germany, where it is on permanent display.



Circuit diagram of 'Konservenbüchsen' ('Tin can') also known as P 2000 GS radio. The valve was a RV12P2000, an universal miniature type which found widespread use in German Wehrmacht communication equipment. This valve appeared to give good performance even with only 12V HT.

Inset: RV12P2000 valve as used in the 'Tin can' radio.

References:

- Dipl.-Ing. Werner Bösterling, Konservenbüchsen-Radio, GFGF Funkgeschichte, Nr. 173, (2007) ©.
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- Internationales Radiomuseum Hans Necker website: <http://www.internationales-radiomuseum.de/>