



VXW 010 Country of origin:
Czechoslovakia



VXW 010 with throat microphone and earphone. When not in use it required a dummy plug with shorting pins (Inset).

DATA SUMMARY

Design/Manufacturer: Tesla Pardubice.

Year of Introduction: 1960s.

Purpose: Security forces (police, secret police) and fire-fighters, it was later released for civilian use (construction, agriculture).

Transmitter Receiver:

Frequency coverage: 33-35, 44-46, 73-78 or 78-84 MHz. (A 150MHz version was noted). Channel spacing 25kHz. FM. Simplex/semi-duplex.

Receiver:

Circuit features: Dual conversion superheterodyne. Crystal control. IF: 10.7MHz and 455kHz.

Sensitivity: < 1.5µV at 20 dB signal-to-noise ratio.

AF output: 150mW.

Transmitter: Crystal control. PM. Nominal frequency deviation ±5kHz.

RF Power: 100mW.

Transistors: In total 24 germanium e.g. OC170, OC169.

Aerials: Vertical rod 1m; Four variations depending the frequency band. Elevated wire aerial.

Power Supply: Battery pack with 10x 1,2 Volt 225mAh NiCad batteries, 12V nominal.

Power drain: Transmit up to 45mA; receive up to 30mA.

Operating time: Transmit: receive: (10:1) max. 8 hours.

Range: 1-3km.

Dimensions (mm) and weight:

Height 183, length 45, width 100; weight 900g complete.

Working temperature range: -10°C to + 50°C.

References:

All information and photographs for this chapter courtesy Jozef Burda, OM0ASB, Slovakia. Without his cooperation this chapter would not have been possible.

See his website at: <https://jozo1009.rajce.idnes.cz/VXW-010/>

REMARKS

The VXW 010 was a fully transistorised miniature VHF FM handheld or shoulder/body worn radio. It was developed in the early 1960s by Tesla Pardubice for security forces and later issued for civilian users. It was the first in a series of radios (VXW 020, PR 21 and PR 22, see Chapter 276) with the same features and users, each version further technically advanced with new technology and additional features.

The radio had a built-in speaker-microphone, but could also be used with an earphone and throat microphone (headset) assembly. When the headset was not in use, a dummy plug with shorting pins was inserted in order to activate the internal speaker/microphone.

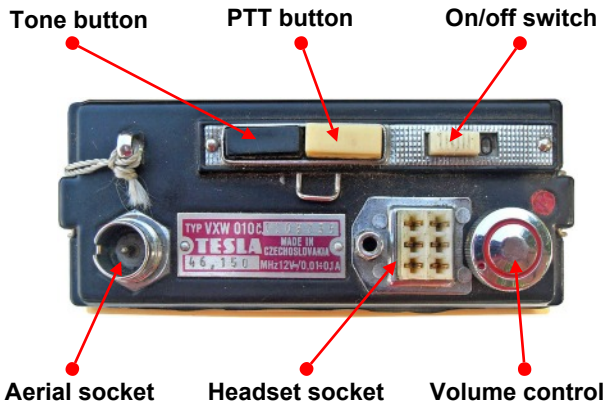
The wire rod antenna was 1 m long with an impedance element in the antenna connector to match the correct frequency band. The same type of aerial was used with the later three models; the rechargeable battery pack, AC mains charger and charger case were also identical in the later models. In wintertime the battery pack, fitted in the charger case and carried on the body, could be connected to special sockets located at the sides of the radio.

A test lamp (artificial aerial) assembly was part of a complete set. It was used to check the RF output of the transmitter indicated on a small incandescent lamp fitted in a dummy aerial plug.



Wooden storage and transport box for a complete VXW 010 station





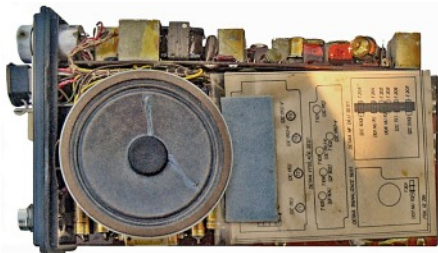
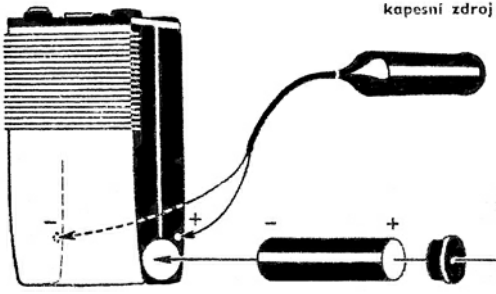
Power and charging the VXW 010 batteries.

The AC mains charger, battery pack and battery charger case was also used with the later issued VXW 020, PR 21 and PR 22.



In winter time, under extreme low temperatures, the battery pack fitted in the charger case and worn on the body, was connected to sockets at the side of the radio (below).

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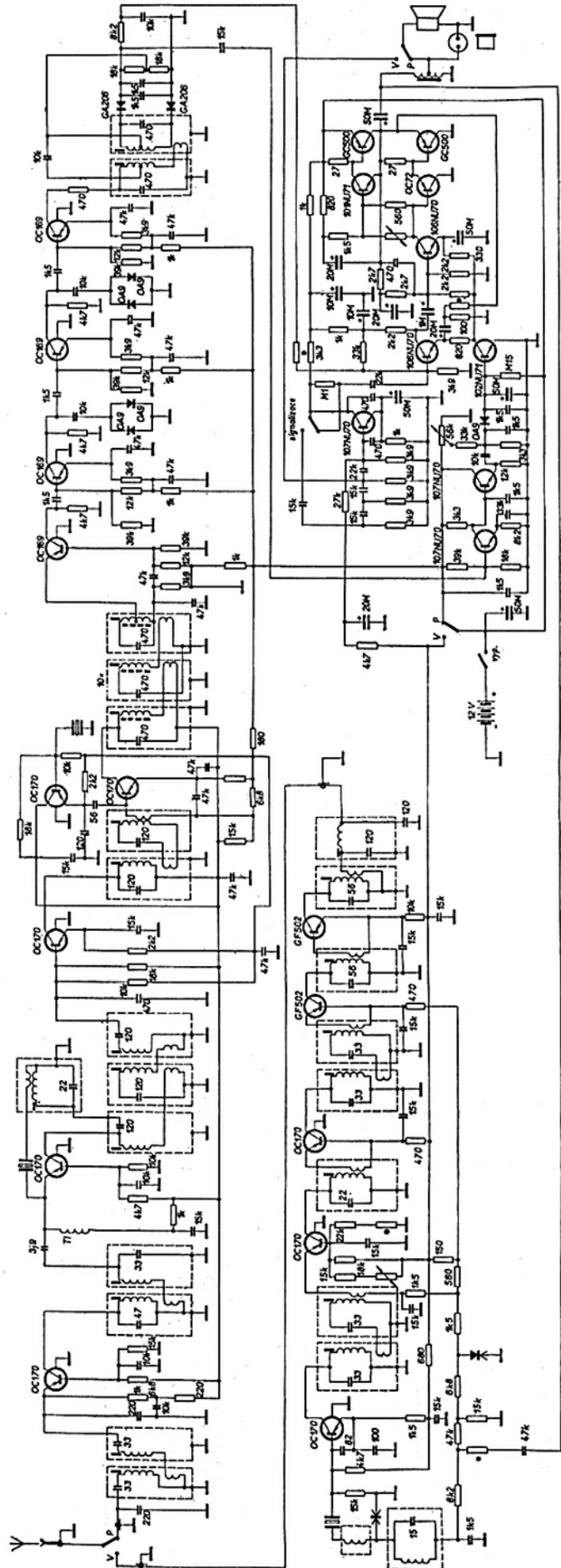


Internal view of the VXW 010 showing the construction of the radio comprising basically three main boards.



Elevated wire aerial with impedance unit for stationary use, slung on a high object (above).

1m long vertical rod which comprised 5 steel wires, and an impedance correction element in the colour coded base (right). (See Chapter 275)



Circuit diagram of the VXW 010.