VXW 100

Including VXW 100 'Skoda', PR 11 and VAW 010)

Country of origin: Czechoslovakia

The VXW 100 in this photo *might* be an early production variation. It is missing the two attachment screws on the front panel.

DATA SUMMARY

Design/Manufacturer: Tesla Pardubice.

Year of Introduction: Approximately 1972.

Purpose: General purpose surveillance, Army, secret police, border guards patrols.

Transmitter Receiver:

Frequency coverage: 33-35, 44-46, 73-78, 78-84 or 150-158 MHz. Maximum 8 channels. Channel spacing 25kHz. FM. Simplex or semi-duplex operation.

Receiver:

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

Sensitivity: 0.7 µV at 20 dB signal-to-noise ratio.

AF output: 400mW. Audible alert tone: 655 Hz.

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

RF Power: 1W.

Aerial: Vertical rod (long and short) and a short wire aerial threaded through the carrying strap. Four variations depending the frequency band.

Power Supply: Battery pack with 11x 1,2 Volt 900mAh NiCad batteries, 13.2V nominal.

Power drain: Transmit 250mA; Receive 95mA; Stand-by 40mA.

Operating time: Standby: transmit: receive: (8:1:1) 8 hours.

Dimensions (mm) and weight:
Height 226, length 51, width 220; weight 2.5kg.

REMARKS

The VXW 100 was a portable full transistor VHF-FM transmitter-receiver, developed and produced by Tesla Pardubice replacing the Astra (R-105 etc). Basically a commercial product, it was used for communication in many fields such as Police, Czechoslovak Army, fire brigades, industry, agriculture and also by the secret police. The set was supplied in several frequency bands, factory preset according to the customer's requirements.

An upgraded later version, known as PR 11, had a crystal filter and silicon transistors as apposed to germanium transistors in the VXW 100. 13.2V DC power was derived from a rechargeable NiCad battery pack which was attached to the bottom. Batteries could be charged from AC mains in a 10-unit charger VYN 100, VYN 101 or single battery charger VYN 005. For portable use it was carried as a shoulder bag.

Used in a static installation, a battery could be recharged during normal operation. In this situation the VYN 005 AC mains charger was 'sand-wiched' between the radio and the battery (see below). When the radio was equipped with an optional selective call unit, the VYN 005 was inserted between this unit and the battery.

Optional ZZ 26 tape recorder interface unit (top), VYN 005 battery charger (centre) and selective call unit (below).

VYN 005 battery charger and rechargeable battery fitted at the bottom of a VXW 100 (left).
It should be noted that the charger was only capable of charging, and could not be used to power a radio without a battery.

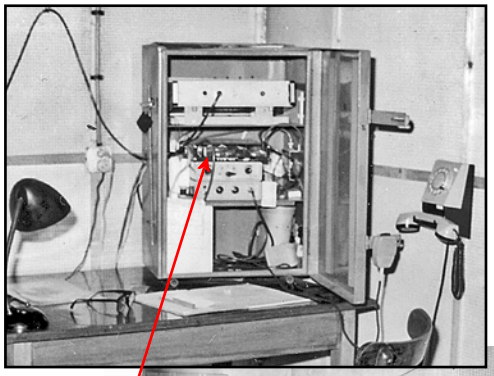
For (inconspicuous) hands free operation of the radio a throat microphone/ptt button and a short wire aerial could be used (left). QN 618 05 was the VXW 100 standard microphone (top right); the PX 25 microphone was primarily issued with the PR 11 (bottom right).

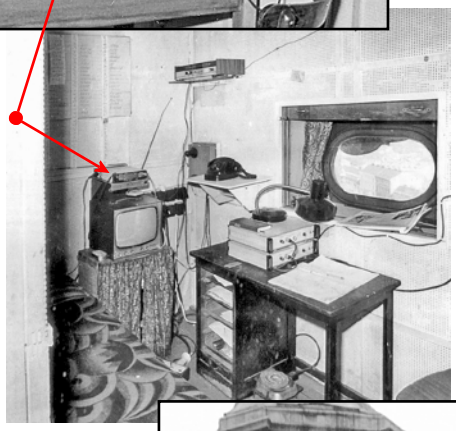
References:

Photographs and information for preparing this chapter were retrieved from the VXW 100 website: http://vwx-100.nazory.cz/ with kind permission of Jan Bednář, Czech Republic; without his assistance this chapter would not have been possible.

Other sources:
https://www.facebook.com/Radiostanice-Tesla-722009397946545
http://www.csla.cz/vyzbroj/spojovaciprostredky/vxw100.htm
https://kovacradio.estranky.cz/clanky/tesla-vxn.html
http://cbnymburk.wz.cz/clanky/vkv_radiostanice.htm

For each frequency band was a set of three aerials (long, short and a short wire aerial). These were distinguished by a coloured coded base. From left to right: 34, 45, 80 and 160MHz.
The first and third aerial in the photo had a ring attached that allowed a more comfortable way of attaching the aerial.
All VXW 100, PR 11, VXW 010, VXW 020, PR 21, PR 22 (and VAW 010) aerials were interchangeable.





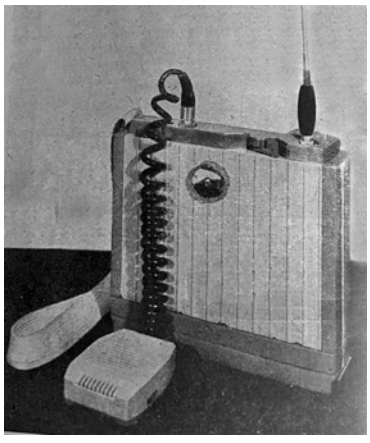
VXW 100 radios used in two different secret observation rooms of the Czechoslovakian State Security StB (right).

Test equipment PSK 92.

For regular maintenance and repairs of the VXW 100 (and many other VHF FM radios) a test set Tesla PSK 92 was used.

Wooden storage/ transport box for an Army VXW 100 'škoda' variation (left).

VWX 100 variations.



There were 3 variations and a prototype of the VWX100: prototype (bottom left), standard VWX 100 (see previous page), VWX 100 'škoda', a modification for the Czechoslovak Army *) to connect a tank headset assembly (top left), and the PR 11 (top right) which was an upgraded later issued model.

***) The VXW 100 škoda was integrated into a 30 mm Anti Aircraft twin-gun PLDvK 53/59 Ješterka. It was later replaced by the RF 10 (Chapter 273).**

A spin-off from the VXW 100 was the VAW 010, a transmitter only, used for remote control of industrial and agricultural applications (above).