



## WSA 1 Country of origin: GDR

### DATA SUMMARY

**Organisation:** Hauptverwaltung Aufklärung des MfS. (HV A, Ministry of Security), GDR.  
**Design/Manufacturer:** OTS/unknown.  
**Year of Introduction:** Mid 1970's.  
**Purpose:** Agents short wave transmitter.  
**Transmitter:**  
**Circuit features:** Synthesised oscillator with 4200 steps of 5kHz. A1 only with maximum data speed of 500Bd.  
**Frequency Coverage:** 3-24MHz.  
**RF output:** 50W into 50Ω. 4W during tuning.  
**Aerial:** 2x 8m wire dipole; 2m telescopic rod; umbrella.  
**Associated receiver:** FLE.  
**Power Supply:** The set operated on 24V DC. Issued was a 24V battery, a 12V/24V inverter power unit and a 220V AC mains power unit.  
**Size (cm):**

	Height	Length	Width
Transmitter	4	10.5	19
Aerial Tuning Unit	4	10.5	14
Power Supply Unit	3	10.5	20
High speed keyer	3.5	11	21

### Corrections on the HV A section in the 'Eastern Germany' Chapter of WftW Volume 4:

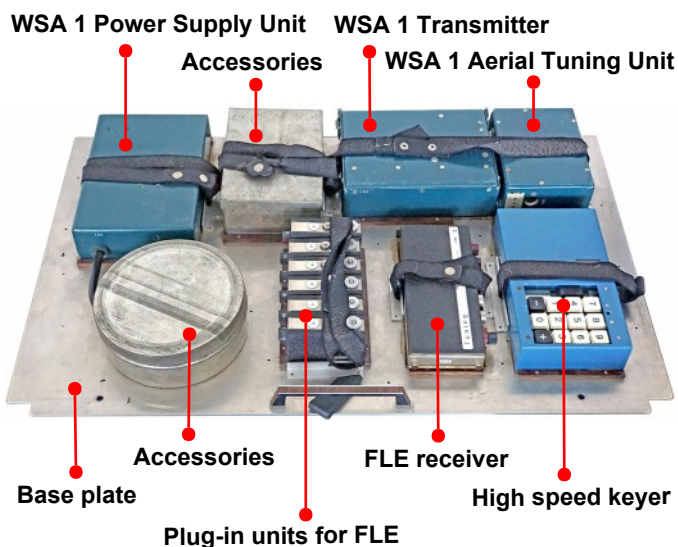
- The correct name was **WSA 1** (or **3 2210**) and not **HV A**.
- The WSA 1 was a transmitter only with a frequency coverage of 3-24MHz and not 1.5-4.9MHz.
- The unit indicated as 'Receiver Unit' was wrongly identified and is in fact the associated aerial tuning unit.
- The transmitter operated on a 24V battery, a 12V/24V inverter or a 220V AC mains power unit.

### REMARKS

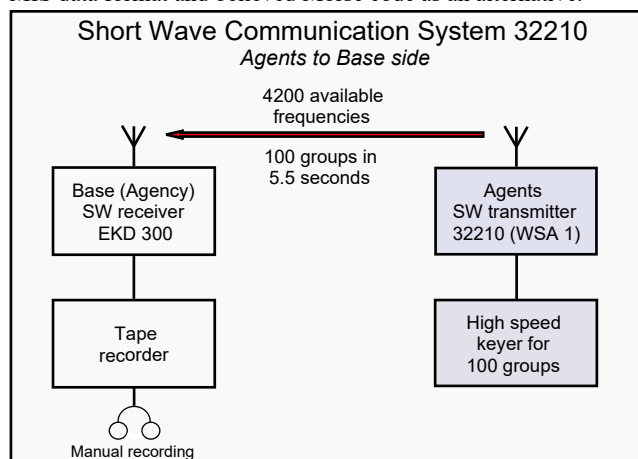
The WSA 1, also known as 'Funksendestelle 3 2210' and 'Gerät 2210', was a fully transistorised miniature shortwave transmitter designed for use by GDR agents. (*WSA = Weitverkehrssendeanlage = Long range transmitter*) It was primarily intended for use within a short wave communication system (covert name 3 2210) which was developed for a range of up to 5000km (see block diagram below). Recorded is the production of 300 units. The transmitter comprised five separate units: WSA 1 transmitter, aerial tuning unit for wire and rod aerials, AC mains power unit or 12V/24V inverter power unit, wire and rod aerials, and a 24V battery in container. The transmitter, tuning unit and power unit were issued in separate waterproof containers. In the early 1980's an 'Umbrella' aerial was issued as an addition to the wire and rod aerials, primarily for use in buildings. (See Chapter 100)

The associated solid state high speed keyer did generate a special MfS data format and believed Morse code as an alternative.

This Supplement chapter is a follow up/replacement and should be read in conjunction with the HV A section in the 'Eastern Germany (GDR)' chapter of WftW Volume 4 for more information and b/w pictures.



Agent's equipment as used in the 32210 system mounted on a base plate.

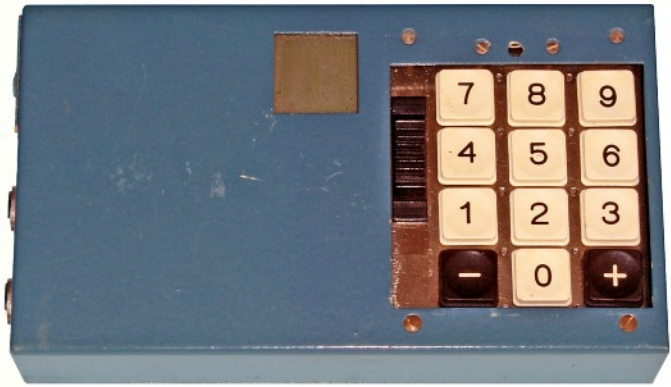
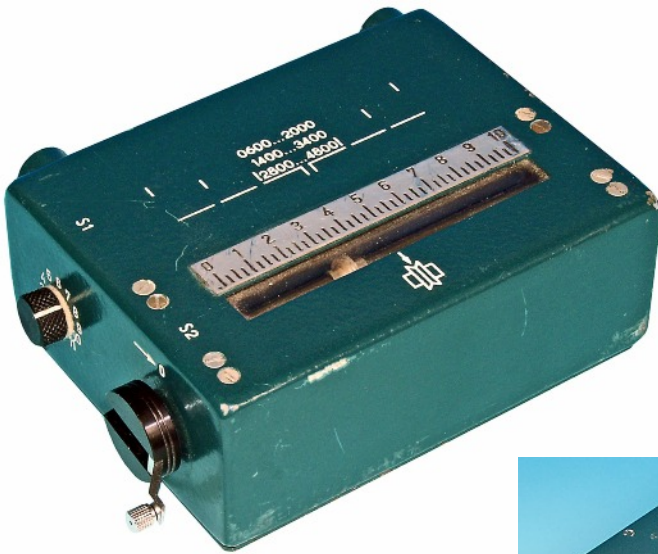


Block diagram of the GDR Short Wave Communication System 3 2210. 'Agents side' (right) and 'Base side' (left) with separate transmitter and receiver sites.

### References:

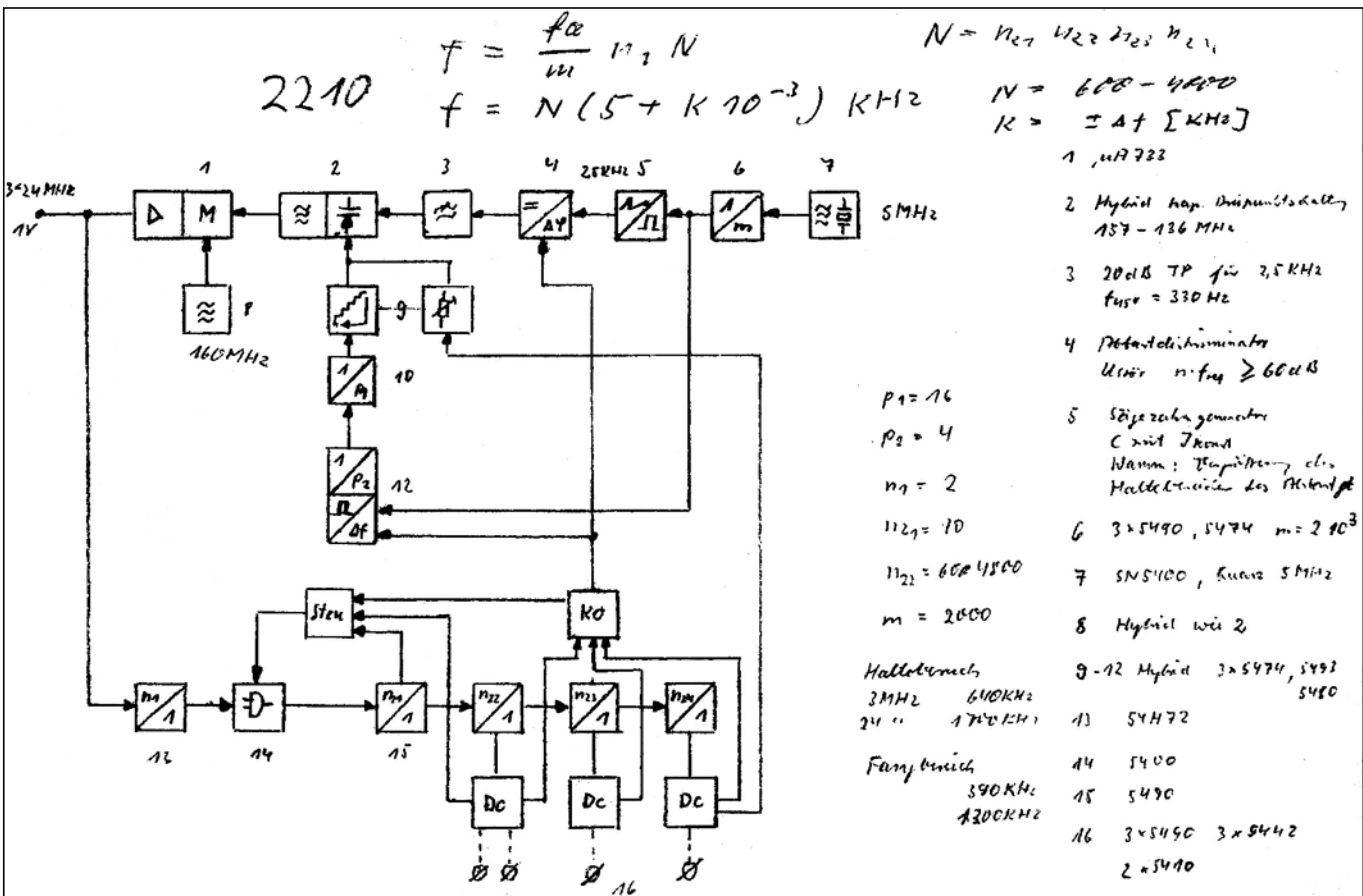
- Photographs, block diagram and further information courtesy Detlev Vreisleben, DC7KG, Germany.

Close up photo of the Aerial Tuning Unit for the WSA 1. (below) The unit clipped in contacts at the right hand side of the WSA 1. It contained a hand operated rotary inductance (S2) and a fixed coil with switched taps (S1).



Associated high speed electronic key, as used with the WSA 1 transmitter. (above) It was connected via a cable to the socket located on the front of the transmitter.

Main components of the WSA 1 station: Power supply unit, transmitter, aerial tuning unit and a low pass filter. The latter was part of a later issued 'Umbrella' aerial (Chapter 100) replacing the aerial tuning unit. Below is the high speed keyer.



Block circuit diagram of the WSA 1 synthesiser unit. Low pass filtering and RF amplification was done in the other parts of the transmitter.

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