Wireless for the Warrior - Volume 4

Supplement Chap. 100 - 1



'Umbrella' aerial Country of origin: GDR

General view of an 'Umbrella' aerial placed in a hotel room, connected to the low-pass filter.

DATA SUMMARY

Organisation: HauptVerwaltung Aufklärung des MfS.

HVA, Ministry of Security, GDR. **Design/Manufacturer:** OTS/unknown.

Year of Introduction: 1983.

Purpose: Agents.

Frequency range: 4-18MHz @ 50Ω . Specified for 60W.

Size: Height of erected aerial 220-315 cm.

Accessories: See below.

REMARKS

The original wire dipole and vertical rod aerial with central loading coil (Type 32210-62) issued with the WSA 1 transmitter (Chapter 58) were not fully satisfactory, particularly if transmitting was required from a building. Provisional experiments carried out in 1978 showed room for improvements which led in mid 1982 to successful trials with a pre-production 'Umbrella' aerial, officially known as Type 32210-64.

The 'Umbrella' aerial was basically a sectional rod aerial, vertically positioned between the floor and ceiling by two umbrella shaped supports which also acted as top and ground capacity. It had a variometer for matching the rod to 50Ω . The aerial was connected to the WSA 1 transmitter via a 1.5m long coaxial cable and low pass filter. As a point of interest: 300 'Umbrella' aerials were produced from 1983 onwards, corresponding to the number of WSA 1 transmitters.



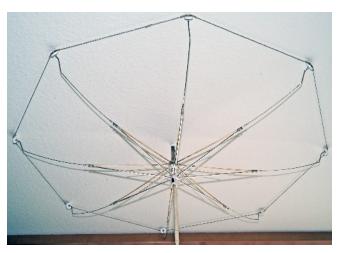


Complete 'Umbrella' aerial kit in canvas transport cover (left) and shown in individual parts (right). The blue block fitted with a BNC socket in the centre below the variometer was a low pass filter which clipped at the right hand side of the WSA 1 transmitter in place of the aerial tuning unit.

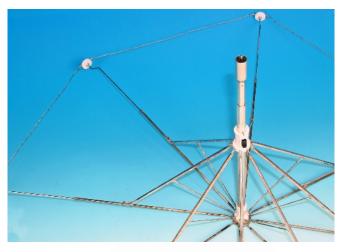
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Top side of the 'Umbrella' aerial secured to the ceiling.



Detail view of umbrella.



Close up of one of the arms of the umbrella.



Detailed view of the variometer unit

7 Top capacity and ceiling support.

6 Upper rod.

8 Fixed extension rod.

9 Variable extension rod.

5 Variometer.

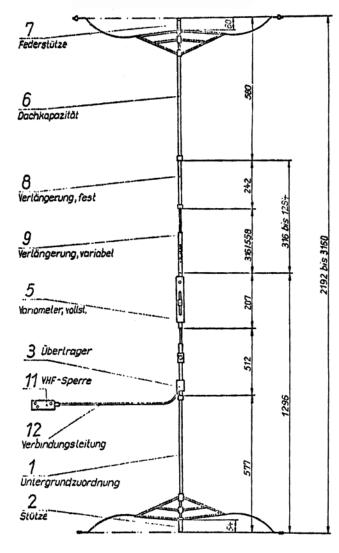
3 Impedance transformer.

11 Low pass filter.

12 Coax connector.

1 Lower rod.

2 Floor support and capacity.



Dimensions and functions of individual parts of an assembled 'Umbrella' aerial.

References:

- Photographs, scans, detailed information and further support was kindly provided by Detlev Vreisleben, DC7KG, Germany.

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