



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

'Umbrella' aerial

Country of origin: GDR

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' aeriels were produced from 1983 onwards, corresponding to the number of WSA 1 transmitters.

DATA SUMMARY

Organisation: Hauptverwaltung Aufklärung des MfS. HVA, Ministry of Security, GDR.

Design/Manufacturer: OTS/unknown.

Year of Introduction: 1983.

Purpose: Agents.

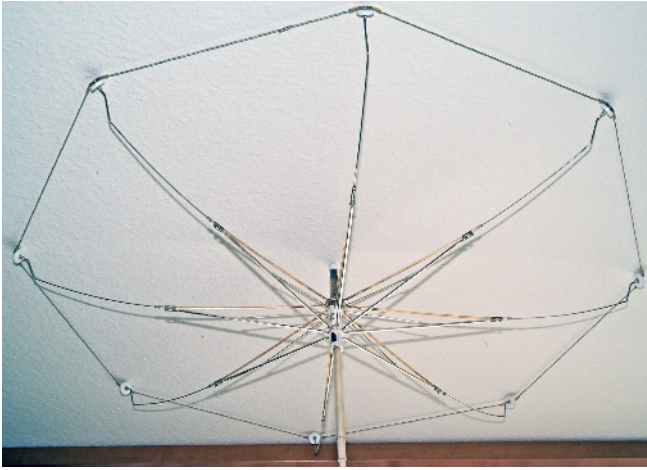
Frequency range: 4-18MHz @ 50Ω. Specified for 60W.

Size: Height of erected aerial 220-315 cm.

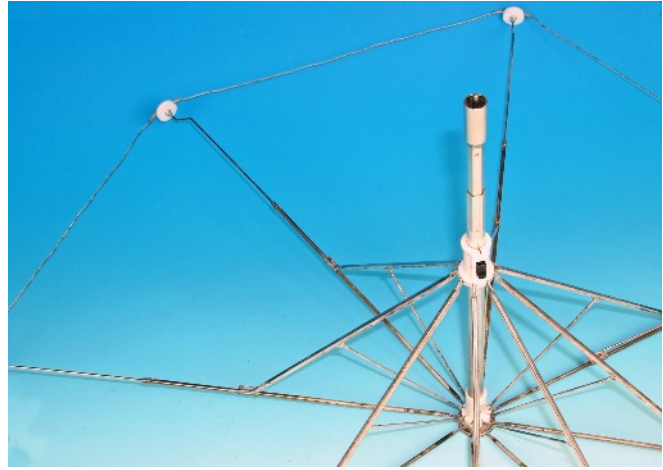
Accessories: See below.



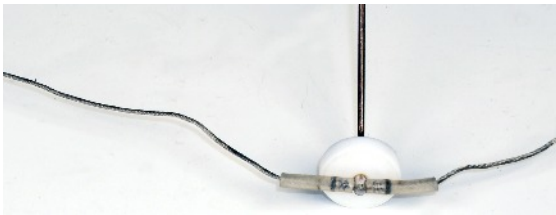
Complete 'Umbrella' aerial kit in canvas transport cover (left) and shown in individual parts (right). The blue block fitted with a BNC socket in the centre below the variometer was a low pass filter which clipped at the right hand side of the WSA 1 transmitter in place of the aerial tuning unit.



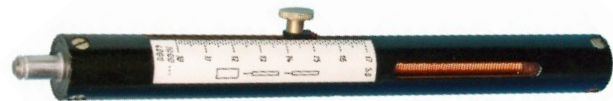
Top side of the 'Umbrella' aerial secured to the ceiling.



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.

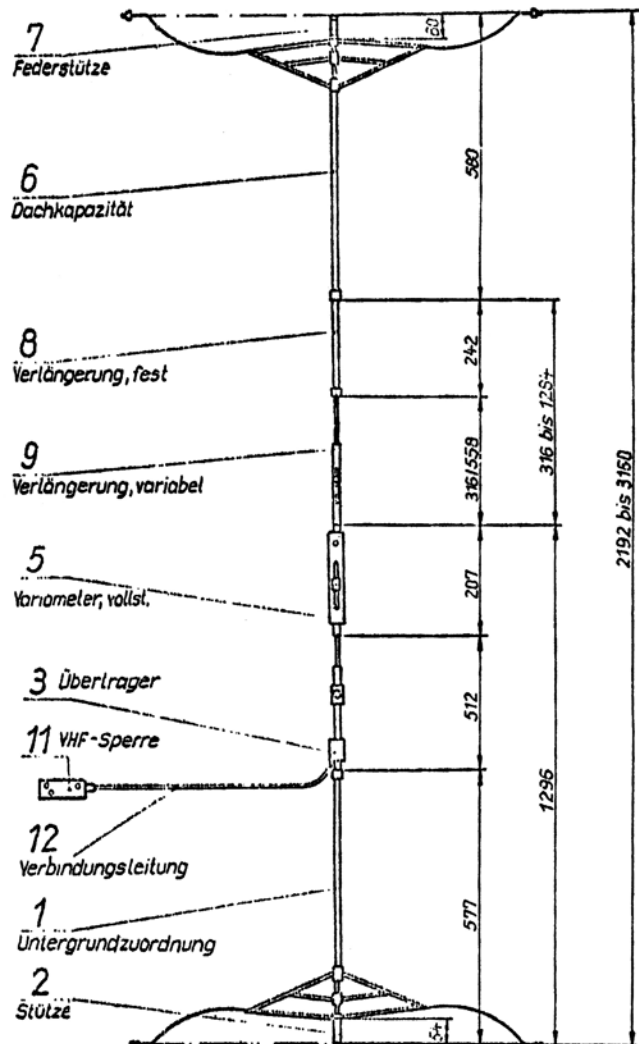
3 Impedance transformer.

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.