The '% Oxygen' meter (top left) was used to give an indication of the transmitter RF output. This was calibrated by the 'cal' potentiometer at left hand side of the function switch.

VHF transmitter hidden in an oxygen controller

Country of origin: Germany W

DATA SUMMARY

Organisation: BND*.

Year of Introduction: Unknown, believed mid 1970s.

Purpose: Agents one way communication to orbiting satellites.

Transmitter: Fully transistorised.

Circuit features*: VHF oscillator with PLL circuit, crystal controlled reference oscillator, FSK modulator, driver stage and RF power amplifier.

Frequency range*: VHF, crystal controlled single frequency.

RF output*: 20-25W.

Power Supply: Derived from controller AC mains PSU.

Size (cm)*: Height 30, Length 45, Width 30.

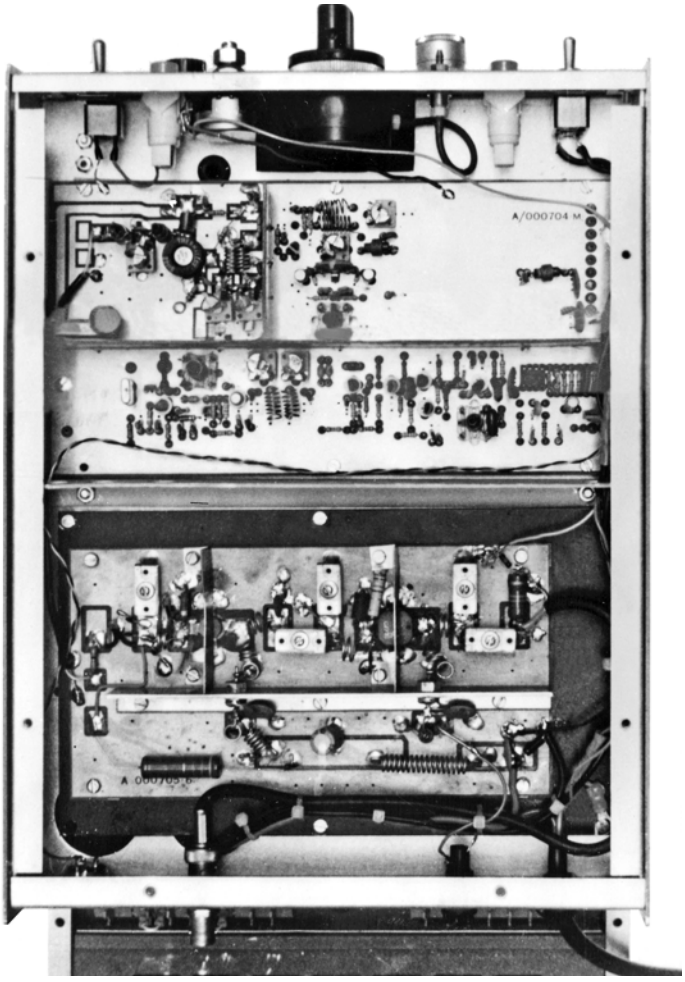
*Not confirmed and only an estimate or suggestion.

REMARKS

The 'VHF transmitter hidden in a Sinclair oxygen ratio controller' was probably used by agents for one way communication to orbiting satellites. It comprised three boards: VHF oscillator and PLL circuit board; crystal controlled reference oscillator and fsk modulator circuit board; driver and RF power amplifier board.

These circuit boards were located at the bottom of the oxygen controller probably leaving the original equipment functional. RF output to the aerial and data input sockets were located out of direct sight at the rear.

Photographs of the hidden VHF transmitter described in this chapter came from the former East German MfS archives. Unfortunately no written information of technical details, country of origin and date of possible capture could be retrieved. It is believed that the complete set was constructed for the BND in West Germany.



View of the oxygen controller with bottom cover plate removed showing the VHF oscillator and PLL circuit board (top); crystal controlled reference oscillator and FSK modulator circuit board (centre); driver and RF power amplifier board (below).

References:

- Photographs and information courtesy Detlev Vreisleben, DC7KG, Germany.
- Documents MfS-HA IV-Fo-1193, pictures 0005 and 0007.