LWE 7 receiver normally used in an Operational Support Point.

TF-B (2C) tx transmitter 33800-11x which required a separate microphone.

TF-B tx (2C) Doorbell/dooropener

33800

(GDR line bugs IX)

Country of origin: GDR

DATA SUMMARY

Organisation: MfS, Abt. 26.

Design/manufacturer: MfS, OTS Abt. 33.

Year of Introduction: 1981.

Purpose: Using an existing doorbell/dooropener cable for routing the output of a TF-B tx (2C) bug at an Operational Object to an Operational Support Point.

Microphone: e.g. Knowles type BT 1751.

Power Supply: 12V AC derived from doorbell system.

Currently known covert numbers of TF-B (2C).

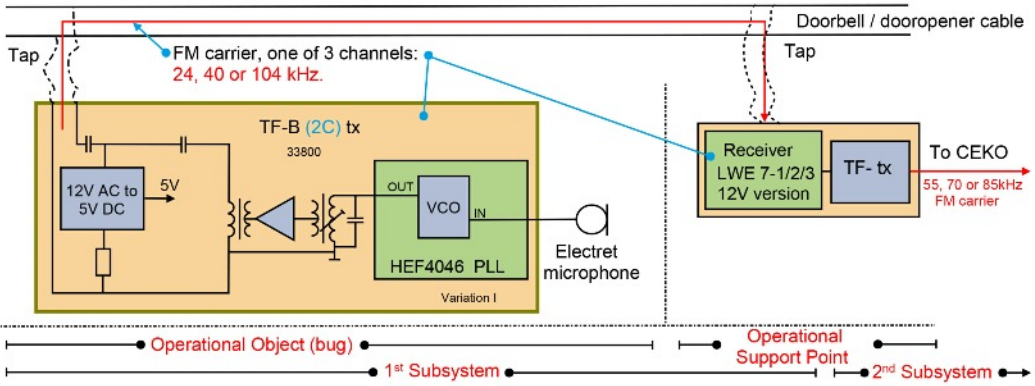
33800-101/102/103* TF-B tx Transmitter with microphone.
33800-111/112/113* TF-B tx Transmitter only.
33800-131/131/133* TF-B rx Receiver (LWE 7-1/2/3)

*) 3 different channels.

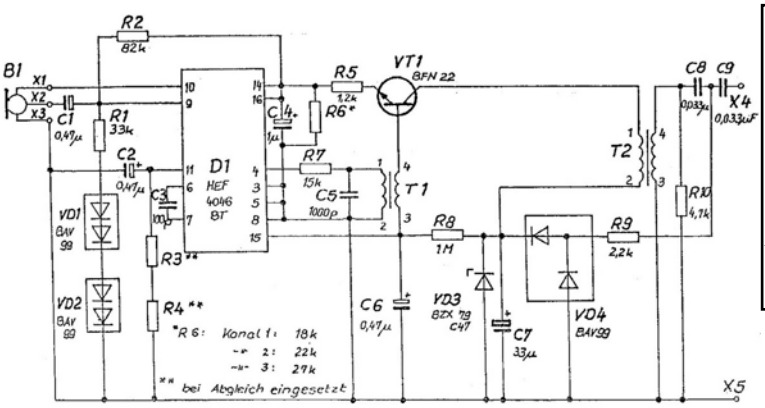
(To be read in conjunction with Chapter 163.)

REMARKS

A 12V AC door bell or door opener cable was tapped at two places, used to route the output of a TF-B tx (2C) transmitter at the Operational Object to a TF-B rx LWE 7-1, 2 or 3 receiver at an Operational Support Point. The system was known as '*12V Technik*' as it received its power from the 12V AC doorbell system. The individual units (TF-B tx (2C) transmitter and receiver LWE-7) differed not very much from those used with TF-B tx (2A); mainly in the output circuits with power arrangement. The system operated on one of three FM carrier channels: 24, 40 or 104kHz, hence three versions of the units.



Functional block diagram of the TF-B (2C) system.



Circuit diagram of TF-B tx (2A) transmitter 33600 which was nearly identical to the TF-B tx (2C) 33800. Differences might have been in the values of the output circuit R9-R10 and C8-C9.

There were, as far as could be traced, five different variations in the design of the TF-B tx (2) bugs, functionally similar but built with different components, used for specific purposes.

Variation 1 [in TF-B tx (2A) and TF-B tx (2C)] used a HEF 4046 PLL.
Variation 2 [in TF-B tx (2B)] had a CD 4046A PLL.
Variation 3 [in TF-B tx (2D)] had a VCO 30 PLL.
Variation 4 [in TF-B tx (2A)] OSA version with unknown components.
Variation 5 [in TF-B tx (2B)] 33014 with unknown thick film chip.
Apart from a different type PLL, there were numerous changes in the circuits, required for each application, e.g. input circuit, power requirement, FM carrier frequency and remote on-off switching.

References:

- With thanks to Detlev Vreisleben, DC7KG, Germany for permission to use his excellent photographs and scans, and providing further technical and historical information.

© This WftW Volume 4 Supplement is a download from www.wftw.nl. It may be freely copied and distributed, but only in the current form.