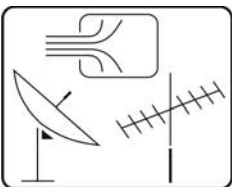


OPERATING INSTRUCTION

KFG 2 KFG 2-3HE KFG 2-1HE

Code frequency generator with 2 frequencies



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This operating instruction was produced to the best of knowledge. Errors excepted as well as alterations and additions are subject to change.

1. General

The *KFG 2...* is a code frequency generator (KFG) with two switchable carrier frequencies. These are modulated with a programmable alphanumeric identifier. This is the prerequisite for the application of disturbing radiation field strength measuring systems and for finding of RF-leakage in the products of the company SAT-Kabel GmbH.

The display of the identification of the generator is only possible with our measuring instruments *SPM 22 KF* or *SPM 22 MMC*.

2. Scope of delivery

- 1× KFG 2, KFG 2-3HE or KFG 2-1HE
- 1× Plug-in power supply (only KFG 2-3HE)
- 1× Pads 0-20 dB in 1 dB-grading
This operation instruction

3. Mounting

The KFG is typically installed in the head end of a TV cable network.

The installation takes place at the:

<i>KFG 2</i>	by means of two screws (not supplied) vertically on a flat surface – for earthing is an appropriate connection available
<i>KFG 2-3HE</i>	as a plug-in module in the 19-inch rack <i>BGT 19"/3HE</i>
<i>KFG 2-1HE</i>	as a separate 19-inch module in 19-inch cabinets

The RF signal at the output terminal (OUT) is to be fed via coaxial cable to the signal processing. The *KFG 2* and *KFG 2-1HE* have a power supply of its own.

Before operating the equipment must be grounded on the earth connection \perp (with min. 1,5 mm² Cu). Only after that the power has to be established.

The *KFG 2-3HE* is as module supplied from a separate plug power supply (included) or via the *ASN 7* with 12 V DC.



The input (Mod) - if available - is NOT a RF input, but a control input for special applications. This is in NO CASE to terminate with a 75-ohm resistance!

4. Adjustment

The code frequency generator *KFG 2* is preset in the delivery status already with the following parameters:

Code frequency 1	87.3 MHz
Code frequency 2	301.3 MHz
Detecting code	»KFG2 MUSTER«
Attenuation	4 dB, 5 dB with pads (KFG 2-3HE, KFG 2-1HE)

The check of the settings can be made by a signal level measuring instrument *SPM 22 KF* or *SPM 22 MMC* - in the sequel denoted as SPM. This requires the measurement range »KFG« on the measuring instrument must be set. (See operating instruction of the SPM)

4.1 Controls

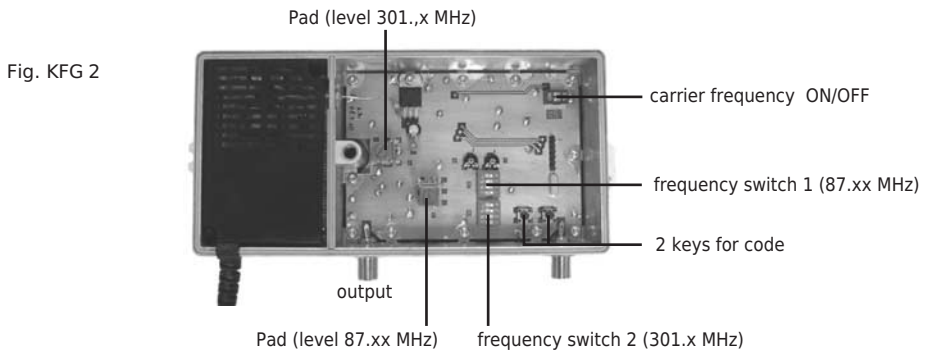
The opening of the KFG is usually only a single time needed to set an individual detecting code, an other frequency and output level. This should generally be done by qualified personnel.



The continuous operation of the code frequency generator is ONLY allowed in the closed case to avoid disturbing radiation! The closing of the housing has to be carried out with ALL the screws!

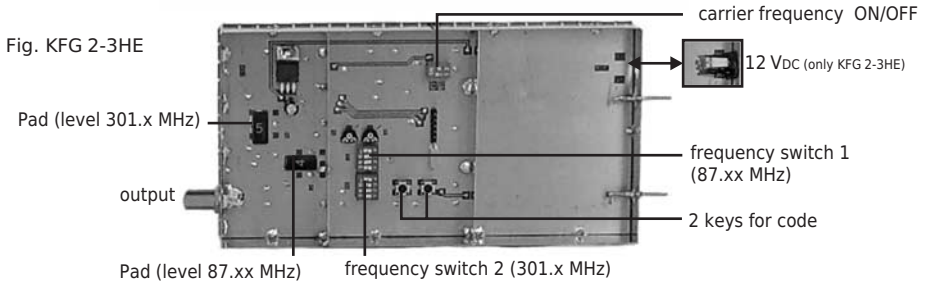
KFG 2

For opening the screw is to loose on top and the cover to remove. Then the appropriate controls are accessible.



KFG 2-3HE

For opening remove the lid with the sticker carefully. Then the appropriate controls are accessible.



KFG 2-1HE

On the top of the unit, the four screws of the cover plate must be removed. Then it can be removed. The opening of the generator is as in *KFG 2-3HE*. Now the controls are accessible (see Fig *KFG 2-3HE*).

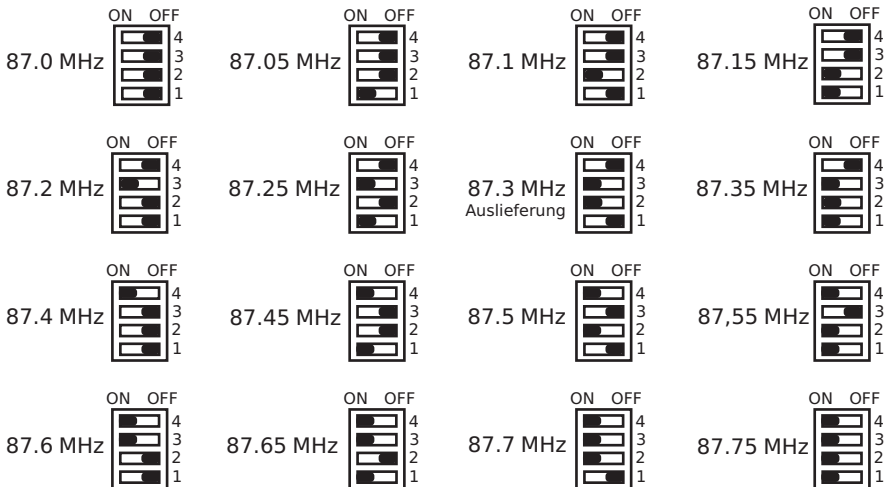
4.2 Adjustments change

Carrier ON/OFF (from 08/2010 included)

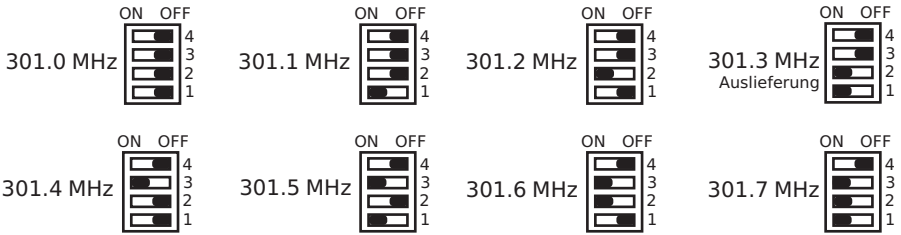


switch 2: frequency 2 (301.x MHz) ON/OFF
 switch 1: frequency 1 (87.xx MHz) ON/OFF

Frequency 1 (87.xx MHz)



Frequency 2 (301.x MHz)



Detecting code (display text)

To change the display text connect a SPM to the RF output of the code frequency generator (marked on the unit), set to the measuring range »KFG« and choose a carrier frequency selected at the generator.

Now press the buttons »up« and »down« of the KFG continuously (1 s). When the cursor appears in the display of the SPM, then the KFG is in the programming mode. Now by a short press (0.5 s) of one of two buttons (»up« or »down«) of the KFG characters can be changed. By a long press (1 s) of a key character position is changed. To save and exit programming mode press both keys at the same time long (1 s).



After finishing all settings it is necessary to close the KFG 2!

5. Technical Data

Frequencies	1 87.0–87.7 MHz in 0.05-MHz steps 2 301.00–301.70 (optional 310.0–310.7 MHz) in 0.1 MHz steps
Modulation	FM, deviation 50 kHz
Output level	90...108 dB(μV), separately adjustable KFG 2: with attenuator (optional Pads) KFG 2-3HE: with Pads in 1 dB steps KFG 2-1HE: with Pads in 1 dB steps
S/N-ratio	>60 dB
F output	F-socket, 75 Ohm
Input (only KFG 2)	External control input for special application

Detecting code	13 characters (letters/numbers)	
Programming	with 2 keys	
Power supply	KFG 2:	230 VAc, ca. 8 W
	KFG 2-3HE:	12 Vdc
	KFG 2-1HE:	230 VAc, ca. 8 W
Power cable length	KFG 2-1HE	1.75 m, fixed installed
Dimensions (L×W×H)	KFG 2:	196 mm × 96 mm × 55 mm
	KFG 2-3HE:	modul for assembly carrier 3 HE
	KFG 2-1HE:	485 mm × 220 mm × 43,6 mm (1 HE)
Weight	KFG 2:	ca. 1 kg
	KFG 2-3HE:	ca. 0.5 kg
	KFG 2-1HE:	2.9 kg

6. Cleaning and maintenance

The outer surfaces can be cleaned with a soft, dry, lint-free cloth. No further care is needed.

Guarantee
State July 2006

For this instrument will be granted a service life (in following called guarantee) to following conditions:

- This guarantee is valid for new instruments purchased in Germany.
- New instruments and their components, which are defective because of production faults and/or material faults, are repaired or are replaced from SAT-Kabel® against a corresponding instrument.
- For wear parts, like accumulators, keyboards, housings, bags, connecting cables this guarantee is valid for 6 month from the purchasing date.
- The guarantee claim expires at matings by the purchaser or third persons.
- At defects, caused by improper handling or operating, by wrong installation or store, by improper connection or mounting, no guarantee is granted.
- For not justified demand of our service we charge for our service the usual payment for material, working hours and forwarding costs.
- Repairs are only made with filled service covering.

(Forms for service coverings and further information are found in the standard form contracts under: www.sat-kabel.de)

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Errors, technical amendmends and developments are subject to change without notice!