



KSG-Sender

Country of origin: Germany W

DATA SUMMARY

Organisation: Bundesnachrichtendienst (BND), FRG.

Design/Manufacturer: BND/Hirschmann, Germany.

Year of Introduction: 1957.

Purpose: Agents and stay behind.

Transmitter:

Circuit details: CO/RF power amplifier (CW only)

Frequency coverage:

Version 1: 3-4, 4-6, 6-10 and 15MHz.

Version 2: 3-5.6, 5.6-8.2, 8.2-13.2 and 13.2-16MHz.

Valve: EL84.

RF output: 7½W.

Power Supply: 220V AC mains.

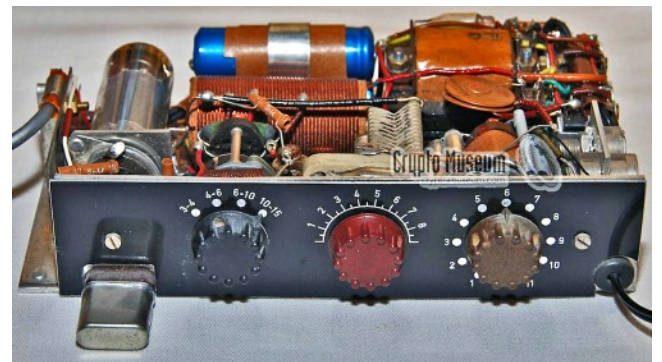
Size (cm): height 4, length 17, width 12.

Accessories: Crystals, RF aerial tuning meter (issued later), aerial and earth wire, KSG high speed Morse keyer.

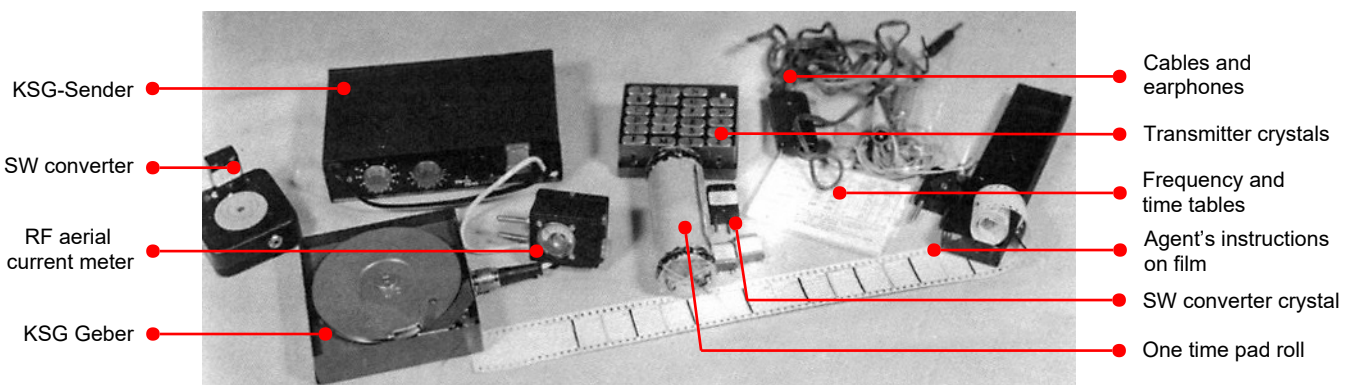
REMARKS

The KSG-Sender (KSG=Kurzsignalgeber) was developed for use by BND agents and stay behind. The set was believed to be a follow up of the 12 WG. (See Chapter 53). The transmitter was self contained having a built-in AC mains power unit. It was normally issued with a mechanical hand cranked high speed Morse keyer KSG Geber. (Details in Chapter 96)

No provision was made for connecting a hand speed Morse key. About 1960 the KSG-Sender was replaced by the FS-7 which was part of the SP-15 station. (See Chapter 56)



(Right) Front panel layout and part internal view of the early version of the KSG-Sender. The main differences of the two versions were an extended frequency coverage which shows in the positions of the frequency range switch, and the absence of the second neon tuning lamp located above the aerial loading switch.



KSG-Sender and ancillary equipment used by a captured FRG agent in the GDR. Note early version of KSG Geber

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Bedienungsanleitung für K.S.G.

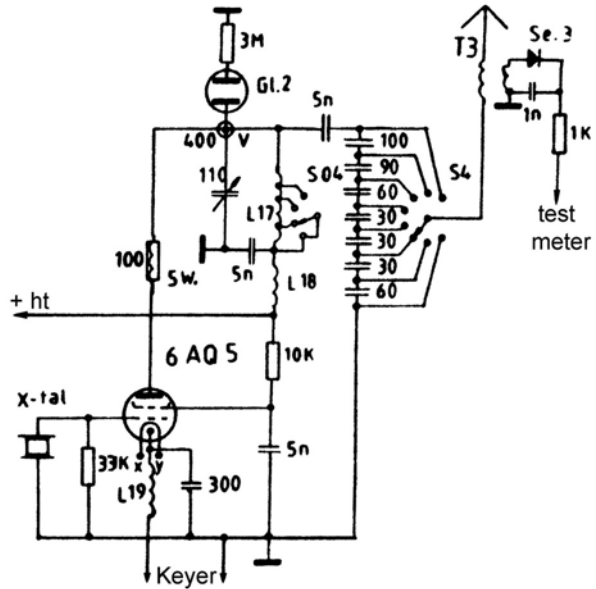
A c h t u n g ! Nur für 220 Volt Wechselspannung.

A) S e n d e r :
 Quarz der gewünschten Frequenz in seinen Halter einstecken den schwarzen Knopf auf den entsprechenden Frequenzbereich stellen.
 Geber, Antenne und Erde anschliessen. Netzstecker in die 220 Volt Wechselstrom-Steckdose einstecken. Untere Glühlampe leuchtet zur Kontrolle auf.
 Unter dauerndem Drücken des Knopfes im Geber sind folgende drei Arbeitsgänge durchzuführen:

- 1) **Roten Knopf langsam drehen** bis die zugehörige Glühlampe aufleuchtet. (Dabei grünen Knopf auf Null stellen)
- 2) **Grünen Knopf langsam drehen** bis die zugehörige Glühlampe, oder das Glühlämpchen aufleuchtet.
- 3) Durch wechselseitiges Nachstellen beider Knöpfe auf grösste Helligkeit der Antennenlämpchen einstellen.

B) G e b e r :

- 1) Geberscheibe mit Zahlen des Spruches in umgekehrter Reihenfolge lückenlos füllen, bis die kleine Blattfeder das letzte Stück fasst und andrückt.
- 2) Durch Rechtsdrehen der Kurbel die Mitnehmerscheibe so weit drehen, dass die beiden gelben Punkte einander gegenüber stehen.
- 3) Geberscheibe einsetzen (roter Punkt bei rotem Punkt) dann Sperrschieber schliessen.
- 4) Kurbel 10 Sekunden lang drehen, mit einer Umdrehungszahl von 1 bis 2 Umdrehungen pro Sekunde, bei geschlossenem und abgestimmtem Sender. (*)
- 5) Zum Abnehmen der Geberscheibe muss der rote Punkt zum roten Punkt gedreht werden.
 Durch Linksdrehen lässt sich die Kurbel heraus-schrauben.
- 6) **V o r s i c h t !** Zahlenabtaetfeder nicht berühren, oder gar verbiegen, Punkt-Stellung beachten!



Considering the functions of the controls and the choice of components, it is believed that the electrical design of the KSG-Sender was based on the 12 WG transmitter circuit, the 6AQ5 replaced by an EL84 valve. (Above). The aerial current circuit and meter (top right) was not envisaged in the KSG-Sender design, but added later as an external unit. At the time of compiling this chapter no original diagram of the KSG-Sender was found, hence the reproduction of the transmitter section circuit diagram of the 12 WG.

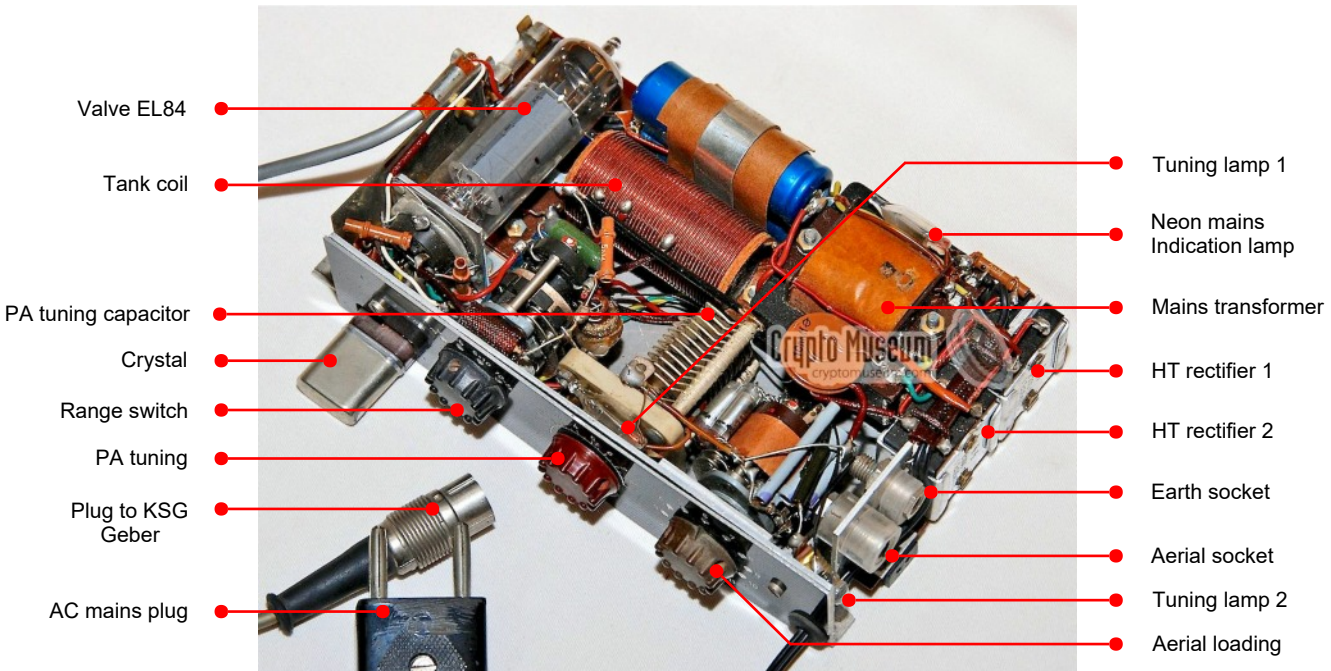
(Left) Scan of original user operation instruction sheet for the KSG-Sender (Sender) and KSG high speed Morse keyer. (Geber)

Two neon lamps and a small bulb were for tuning and matching the transmitter to the aerial. These lamps were visible through small holes in the top of the case. A second neon lamp above aerial loading switch was omitted in a later version and an external aerial current meter unit provided.

It should be noted that other sources mention the the names FS-8 and EL-84 sender to the the BND nomenclature KSG-Sender.

References:

- Photographs, scans, primary information and further support was kindly supplied by Detlev Vreisleben, DC7KG, Germany.
- Colour photos of KSG-sender interior and additional information courtesy Cryptomuseum, Holland. The photos were taken from the collection of Günter Hütter, Austria.



Front panel and interior view of KSG-Sender with enclosure detached.