

S 89/80
Country of origin:
Germany WW2

This supplement chapter is a follow-up that should be read with the transmitter S 89/80 section in the 'Germany WW2' chapter of WftW Volume 4.

DATA SUMMARY

Organisation: OKW Amt Ausland/Abwehr.
Design: Abt. Li, OKW-Aussenstelle Berlin-Stahnsdorf (Until 1942).
Manufacturer: Stahnsdorf until 1942, OKW-Aussenstelle Würzen from 1942 onwards.
Year of introduction: 1940.
Purpose: Abwehr communication.
Circuit features: VFO driving an in push-push connected RF power amplifier. CW only.
Frequency range: 2.5-20MHz covered in two ranges.
Valves: RL12P10, RL12P50 (2x) or LS50 (2x).
Power supply: GL 89. AC mains 110,120, 125, 150 or 220V. Valves: RGN1404 (2x), EZ12 and KI220/0.03 selenium rectifier.
Size (cm) and Weight (kg):

	height	length	width	weight
Transmitter	10.7	49.5	16.5	3.95
Power supply unit	10.7	49.5	16.5	12.5
Complete set in suitcase	12	50	37	21.5

Accessories: Morse key, spare valves, calibration table.



Original custom-made suitcase for S 89/80 transmitter.

Remarks

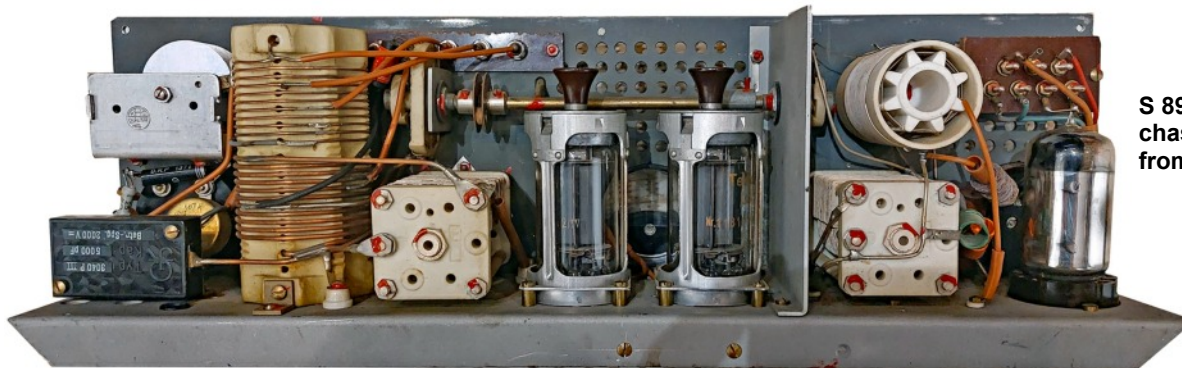
The S 89/80 was a portable high-power transmitter primarily intended for use in Abwehr communication centres, Embassies, Diplomatic missions, etc. It was normally used with any available standard receiver, for example Siemens R IV, Körting KST, Radione R3, KWEa, Philips HMZL, or any suitable captured receiver. In the designation, the prefix 'S' stands for transmitter (Sender), with design number 90, and 80 for 80 watts RF output. The set comprised two units, these were during transport carried in two separate compartments of a high-end leather suitcase, but removed during actual use due to excessive heat. The S 89/8 transmitter unit was placed in the bottom compartment, and the AC mains power supply unit GI 89 located in the top compartment. These were connected by a 7-pin plug and socket (see page 2). The transmitter operated on a frequency range of 2.5 to 20MHz, covered in two switchable ranges. The electrical circuit comprised a variable oscillator, driving two RF output valves, connected in push-push. Keying was done in the screen grids of the valves. The two circuit diagrams on page 3 and 4 are scans from the original OKW-Abwehr 'Lichtpausen', an early method of reproducing technical drawings using light-sensitive paper. This transmitter, which is very complete and in excellent state, is probably the only one that survived in this condition. It is owned by Sotamuseo, the Finnish War Museum.

Acknowledgements

- Photographs and information courtesy Kari Syrjänen, Finland, of the Military Radio Museum (Sotilasradiomuseo) of Kouvola and the Finnish War Museum (Sotasmuseo).
- <https://www.putkiradiomuseo.fi> Military Radio Museum Kouvola.
- <https://www.sotamuseo.fi> Finnish War Museum.

References

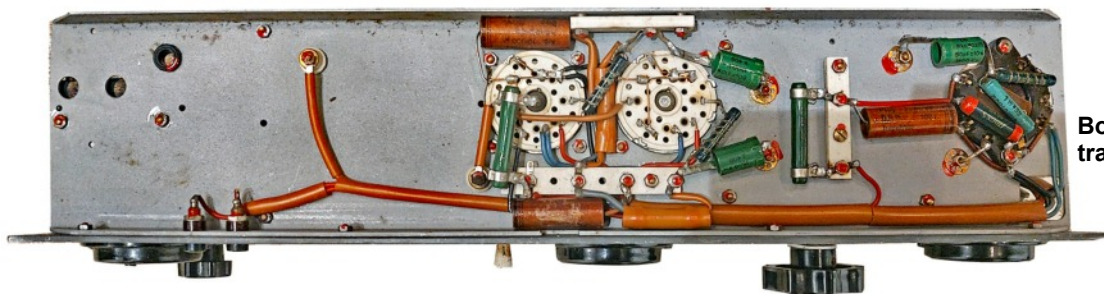
- Staritz, Rud. F.: Das weltweite KW-Netz des Geheimen Funkmeldedienstes bis 1945, Teil 3, funk, No. 4/1987, pp22-23.
- Trenkle, Fritz: Die deutsche Funknachrichtenanlagen bis 1945. Band 2, 'Der Zweite Weltkrieg', Section 15, (co-author Rud. F. Staritz), Telefunken Systemtechnik, Ulm, 1990.
- Wireless for the Warrior, Volume 4, Clandestine Radio, Chapter Germany up to 1945, L. Meulstee, 2004, Wimborne Publishing, isbn 0952063 360.
- Scans of Abwehr 'Lichtpausen' were taken by Rudolf F Staritz †.



S 89/80 transmitter chassis as seen from the rear.

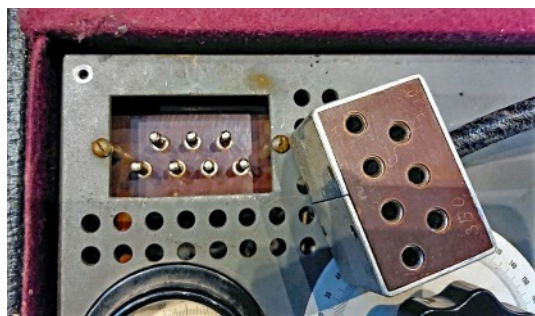


Top view of S 89/80 transmitter chassis.



Bottom view of S 89/80 transmitter chassis.

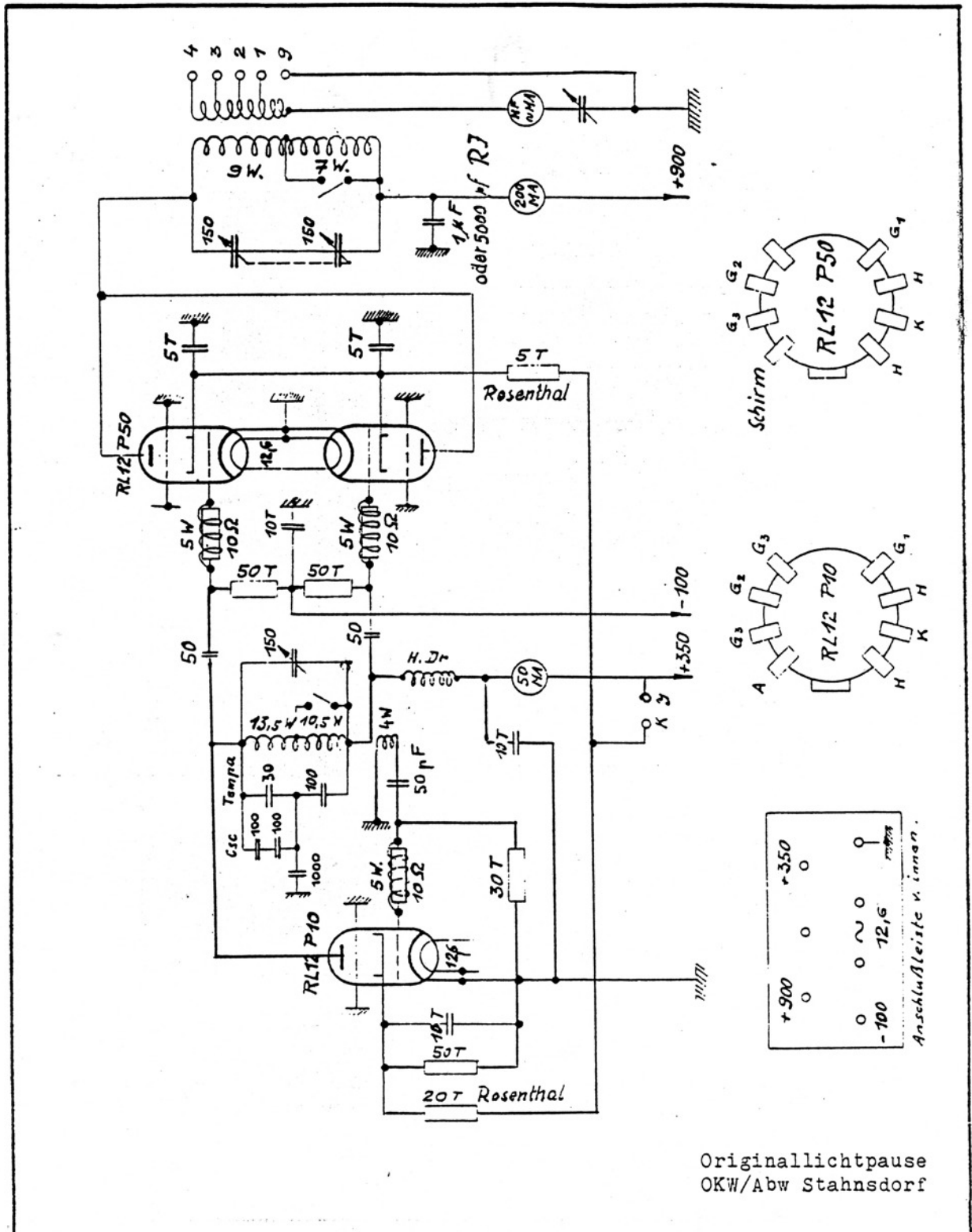
Front view of GI 89 power supply unit with front cover detached.



Detail view of 7-pin power socket and plug.

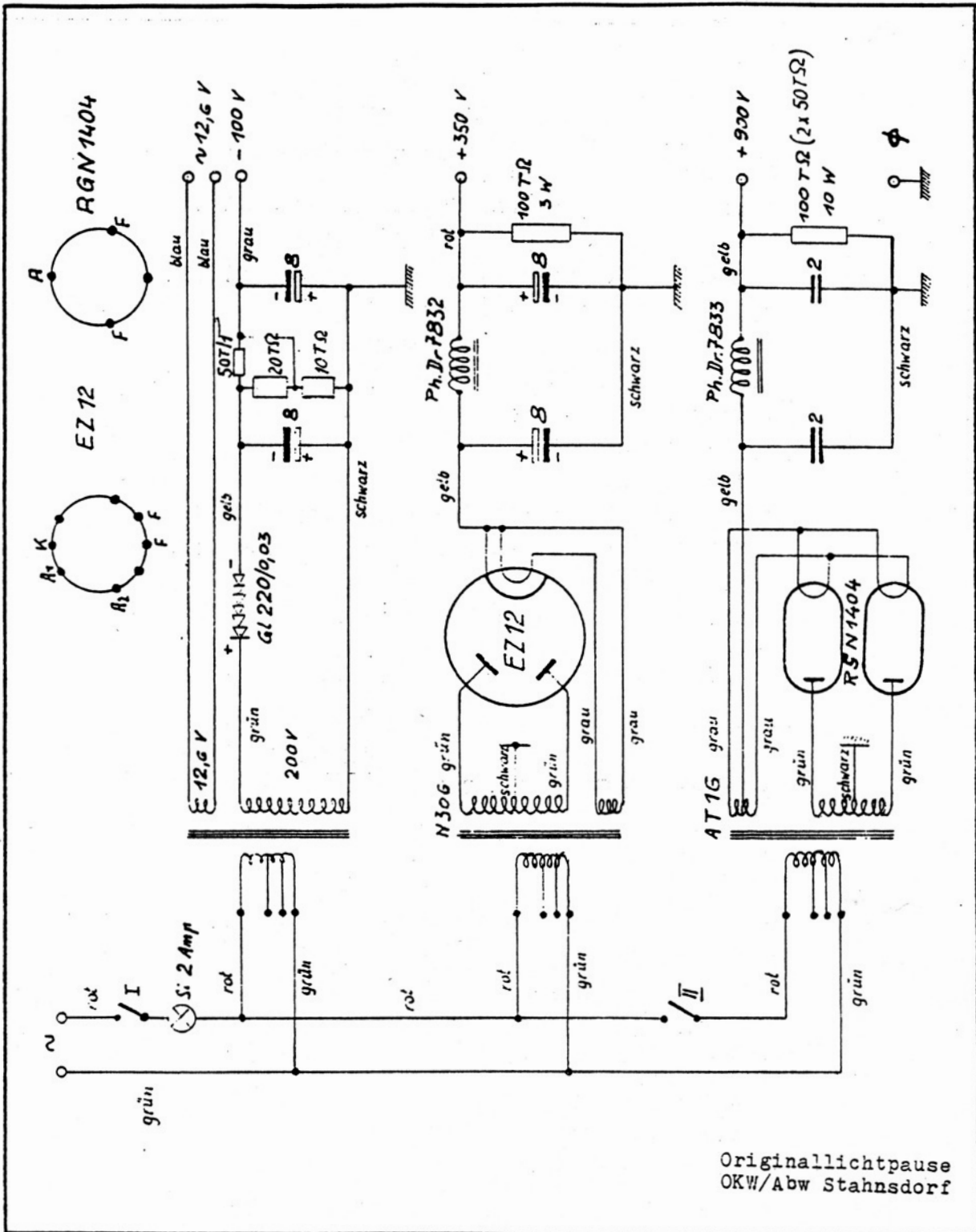
Detail view of the right-hand part of the S 89/80 front panel, showing English text and (believed to be) serial number 101.





Originallichtpause
OKW/Abw Stahnsdorf

	Datum	Name	Geheim!	O. K. W.
Gezeichnet				
Gepflegt				
Normgear.				
Maßstab	S 89/80 "B"			Blatt 1
				Ersatz für
				Ersetzt durch



Originallichtpause
OKW/Abw Stahnsdorf

	Datum	Name	Geheim!	O. K. W.
Gezeichnet				
Gepüft				
Normgepr.				
Maßstab	Gl 89			Blatt 1
				Ersatz für
				Ersetzt durch