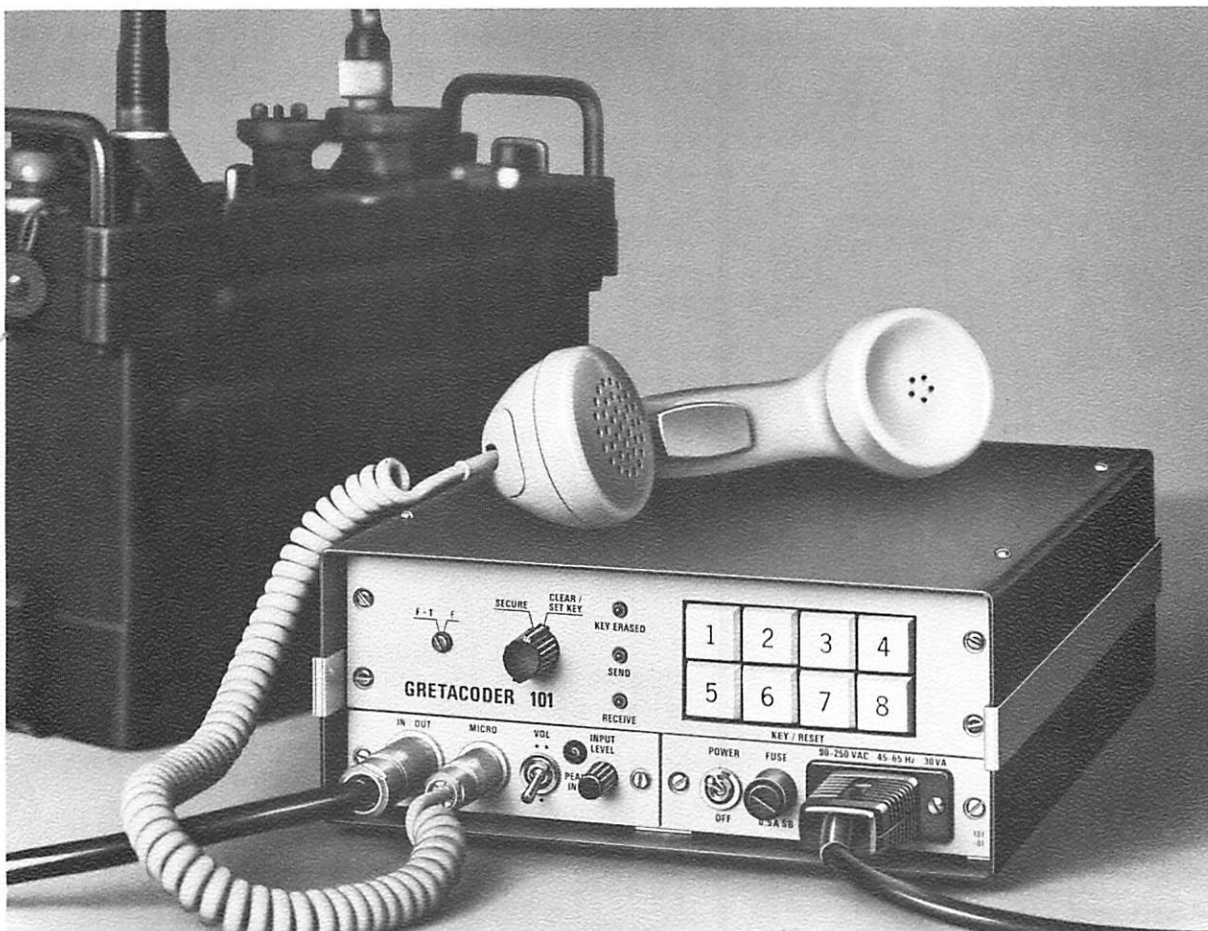


GRETACODER[®] 101

SPEECH SCRAMBLER



The unique GRETAG Speech Scrambler GRETACODER 101 has been designed to protect your voice messages transmitted over radio or regular telephone channels from unauthorized listeners. The GRETACODER 101 will be used by military, police or other government agencies.

A novel two-dimensional rolling scrambling principle has been applied. This double scrambling technique processes the clear signal with two independent digital scrambling programs. Unauthorized and specially trained persons are not capable of understanding the confidential information even when repeatedly listening to a recorded tape. Cracking the message with computers and other sophisticated methods is made very difficult due to the fast and continuous change of scrambling parameters.

Operating the GRETACODER 101 is very simple and no technical skill is required. High reliability, easy trouble shooting and state-of-the-art technology are only some of the outstanding features of the GRETACODER 101.

GRETAG

Specifications

| | |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall dimensions: | 232 mm (9.2") wide, 102 mm (4.0") high, 334 mm (13.2") deep |
| Weight: | 4 kg (8.8 lb) |
| Temperature range: | Operating —10 °C to +50 °C (—10 °C to 0 °C after short warm up time) Storage —25 °C to +70 °C |
| Principle: | Rolling time- and frequency-domain scrambling system with negligible residual intelligibility. Rolling frequency: Frequency domain: 10 Hz Time domain: 10 / 2.5 / 1.25 Hz (adjustable) |
| Principle of scrambling generator: | Digital system using several shiftregisters and nonlinear logical configurations. |
| Period of scrambling generator: | $8.555 \cdot 10^9$ intervals of 100 msec. duration |
| Elementary key: | 8 numbers (1 to 8), determined by the user, to be typed in prior to operation |
| Key diversity: | — Elementary keys: $8^8 = 16777216$ — Structures: 4620 |
| Auxiliary key: | Automatically generated after each start of transmission and change of transmission direction providing a randomly selected scrambling program. |
| Bandwidth: | 300 Hz to 3000 Hz, clear and scrambled signal |
| Line input/output: | — balanced and unbalanced — 4 wire — 600 Ω } (adjustable to other impedances and transmit levels) — transmit level: 0 dBm } — receive level: 0 to —30 dBm |
| | For telephone lines refer to specifications of Phone Adapter PA-101 |
| Power: | DC or AC plug-in units available: — DC Power plug-in: — 10 V to 32 V DC, 30 W — AC Power plug-in: — 110/220 V AC $\pm 15\%$ — 45 to 65 Hz, 30 VA |
| Mode of operation: | Half-duplex (clear and secure) (Full-duplex on request) |
| Controls: | Switches: — F + T / F — secure/clear (set key) — volume — power Keyboard: — key/reset Indicators: — power — key erased — send — receive — peak indicator (input level) Knob: — input level |
| Synchronisation time: | 200 msec. |
| Automatic Resynchronisation: | every 70 sec |
| Specifications subject to change | |