Abwehr (Zählwerk) Enigma G31:

* Character Counter
* No plugboard
* 26 key QWERTZU layout
* Each key carries an additional symbol?
  + Q1 W2 E3 R4 T6 U7 I8 O9
  + A% S, D: F§ G/ H? J& K(MU?)
  + P0(zero) Y- X+ C! V( B) N= M. L’
* Mechanical counter that can be zeroed
* 3 Rotors, settable/movable reflector
* Rotor Wiring (G-312, identical to the commercial Enigma D, except for the notches): (note: Notch is where on the rotor the notch exists, Turnover is the letter visible in the window. Also, military users may have changed the wiring…)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | * **Wheel** | **ABCDEFGHIJKLMNOPQRSTUVWXYZ** | **Notch** | **Turnover** | **#** | |  | | | | | | ETW | QWERTZUIOASDFGHJKPYXCVBNML |  |  |  | | I | DMTWSILRUYQNKFEJCAZBPGXOHV | ACDEHIJKMNOQSTWXY | SUVWZABCEFGIKLOPQ | 17 | | II | HQZGPJTMOBLNCIFDYAWVEUSRKX | ABDGHIKLNOPSUVY | STVYZACDFGHKMNQ | 15 | | III | UQNTLSZFMREHDPXKIBVYGJCWOA | CEFIMNPSUVZ | UWXAEFHKMNR | 11 | | UKW | RULQMZJSYGOCETKWDAHNBXPVIF |  |  |  | |

* No “Double Stop”
* Reflector can be set to one of 26 positions, as well as moved during encipherment. The reflector is permanently fixed (only one wiring).
* The entire mechanism can be stepped forward and backwards without losing the relationship between the rotors.
* Rotor 1: 17 notches, rotor 2: 15 notches, rotor 3: 11 notches





