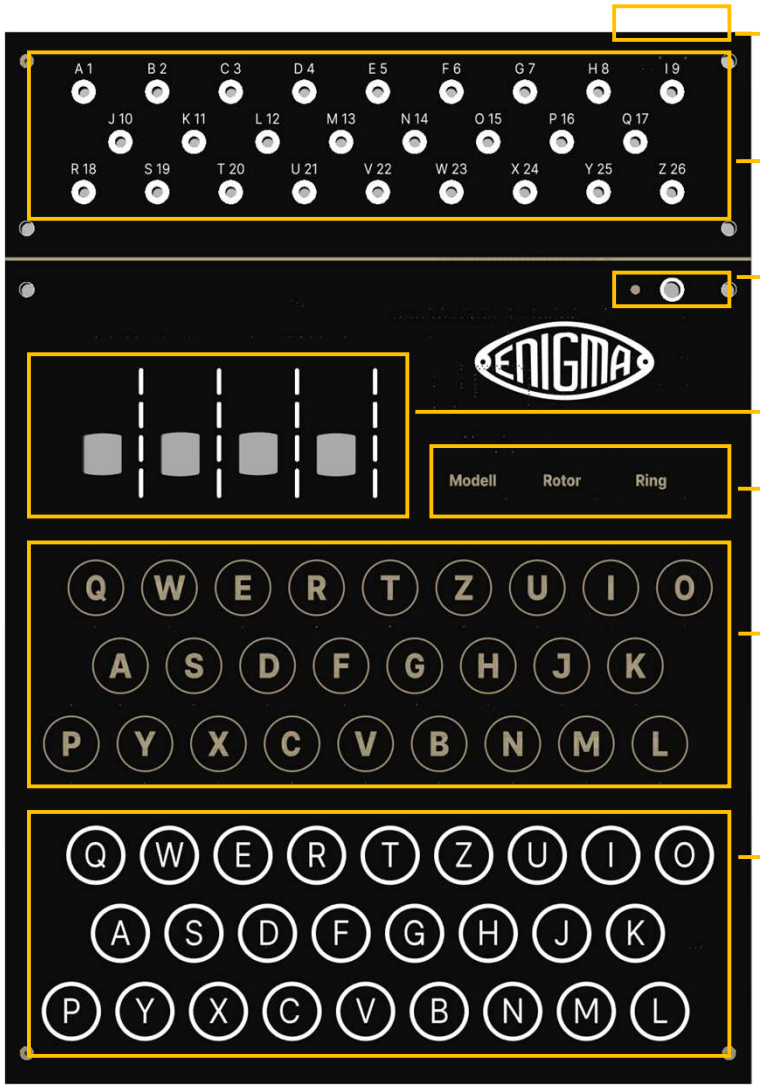
Enigma touch Quick Reference

Controls Overview



USB-C port: 5V power supply, optional data logging.
Recharge battery when lamps begin to flicker!

Plug board, active for Enigma models I, M3, and M4.
Connect pairs of letters as specified in the code settings.
Also used to re-wire reflector D via *Modell* mode key.

Power button; Enigma state is preserved.
Automatic shutdown after 15 minutes of inactivity.
Charging indicator (if LiPo battery installed),
or 5V power supply indicator.

Rotor display, sliders to “turn” rotors.
Used during encryption and for machine setup.

Setup mode buttons, see table on back for details.
This is a feature of the *Enigma touch* replica only.
All mode lights are off in normal encryption mode.

Lamp board displays encrypted or decrypted characters. There is no difference between encryption and decryption mode, since the Enigma code is symmetrical (self-inverse).

Keyboard for character input. Press and hold a key until the rotors have moved and a lamp lights up.

Introduction to the real Enigma:
www.cryptomuseum.com
youtu.be/ybkkiGtJmkM

Enigma Models Replicated by Enigma touch

Machine descriptions and rotor wiring details:
See www.cryptomuseum.com/crypto/enigma
and www.cryptomuseum.com/crypto/enigma/wiring.htm

Display	Machine	Description
I	Enigma I	First military version (Army), with plug board. Only Enigma with numeric rotor labels.
M3	M3	Navy Enigma, 3 rotors.
M4	M4	Navy (submarine) Enigma, 4 rotors.
D	Enigma D	Early variant, notches on rotors, not rings
K	Enigma K	Commercial version, 3 rotors, reflector settable but not stepping, no plug board.
KD	Enigma K, Reflector D	Model K with rewirable reflector, used by Mil Amt intelligence service.
KR	Railway K	Model K, rotor wiring for German Railway.
KS	Swiss K	Model K, rotor wiring for Swiss Army.
T	Tirpitz	Model K variant for Japanese forces. Choice of 8 rotors, 5 turnover positions each.
G	Enigma G (or G31)	Cogwheel mechanism instead of levers to step rotors and reflector. Frequent turnovers, manual back/forth stepping via crank.
G1	Enigma G111	Model G, rotor wiring for Hungarian Army. Only rotors I, II, V are preserved.
G2	Enigma G219	Model G, rotor wiring for Dutch Navy.
G3	Enigma G312	Model G, rotor wiring for German intelligence service (Abwehr).

Mode Buttons for Machine Setup

Touch any button to activate the corresponding setup mode.
Touch active mode button again to return to encryption mode.
Hold any button for 1second for extended functions.

Mode	Description
Modell	Select the Enigma model to be simulated; choose replica settings: audio volume, lamp brightness and verbosity for USB logging.
Rotor	Select the active rotor set (and reflector where applicable). You cannot leave this mode when a rotor has been selected more than once.
Ring	Set the rotors' index rings (position of lettering relative to the internal wiring)
Modell (long press)	Rewire reflector D – make connections on the plug board, then long-press *Modell*. Letters J and Y must be paired or open, all other letters must be paired! Displays "D OK" if wiring is valid, "D ??" if not.
Rotor (long press)	View Rotor Wiring – display the internal wiring of all rotors and the reflector (left). Useful to inspect rewirable reflector D.
Ring (long press)	Crank Mode – for the Enigma G models, enables cranking the complete set of geared rotors back and forth. Use the rightmost slider to turn the crank. Press any mode button to leave crank mode.

Enigma touch Quick Reference – Rev 4.0 for CEDS PCB Rev 5
Made and sold by CEDS, www.obsolescence.dev
Designed by Jürgen Müller, www.e-basteln.de