TOPBYTES LTD
Product brochure · topbytes.net/morse

DESIGNED AND MADE IN BRITAIN

Morse Trainer

Learn Morse the way it's actually used: on a real key

A portable, battery-powered trainer that decodes what you send on your own straight key or paddle, plays Morse back for listening practice and runs six training games, including an ELIZA partner for practice QSOs. Now on firmware 3.0, with free over-the-air updates.



The production Morse Trainer, main screen showing a decoded callsign.

Real key, instant feedback

Plug in any straight key or paddle; see every character decoded

Six training games

Send, listen, memory and an ELIZA QSO partner; Koch mode built in

Pocket-sized, all-day battery

18650 cell charged by USB-C; Wi-Fi setup and free updates

AT A GLANCE

Learn CW on a real key

Most people learning Morse practise with phone apps and websites: tapping a screen or clicking a mouse, with no feel of a real key and no honest feedback on their timing. The Morse Trainer fixes that. Plug in a key, send, and see exactly what you sent, decoded on screen and sounded on the built-in buzzer.

Owners have written to say it got them going with CW when other methods had stalled (page 7). Firmware 3.0 adds a memory game, Koch-method training, loop playback and custom word lists, all delivered free over Wi-Fi, so a trainer you already own keeps getting better.

What you get

- Learn on a real key or paddle, with every character decoded
- Practise sending and listening, from first letters to a first QSO
- Six training games, including an ELIZA QSO partner
- Koch mode and Farnsworth spacing built in

Easy to own

- No phone, no app, no account
- Around a day on one charge; charges over USB-C
- Set up from any phone, tablet or computer
- New features free, by over-the-air update

Make it yours

- Straight key or paddle, left- or right-handed
- 5 to 60 WPM, with adjustable spacing
- Buzzer tone, octave and volume
- Your own practice word lists

6	5–60	3	~1 day
training games	words per minute	languages: EN, FR, DE	on one charge

ALWAYS IMPROVING

- Full user manual online at topbytes.net/morse, with release notes and set-up guides.
- Firmware 3.0 (February 2026): Follow Me memory game, Koch mode with levels 2–40, loop playback, custom practice word lists and Audio/Key and Koch switches on the touchscreen.
- Free updates over Wi-Fi from the About screen; a browser-based recovery tool is in the manual for the rare failed update.
- Try one at Bletchley Park: a unit at the National Radio Centre sits on the reception desk for visitors to try.

WHAT IT DOES

Key it, hear it, see it decoded

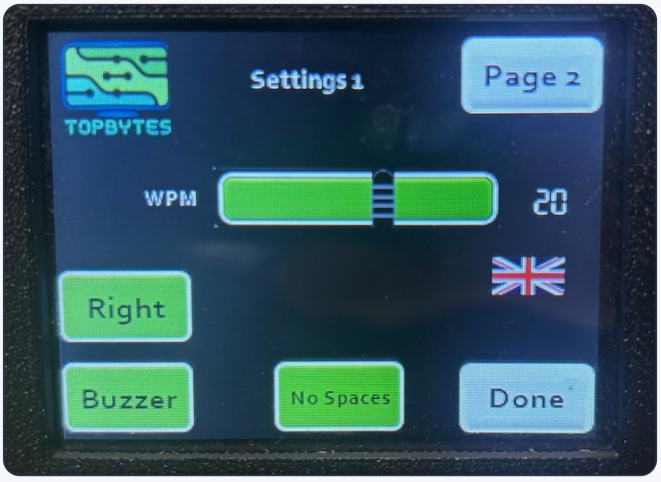
Switch on and start sending. The Morse Trainer times every dot and dash from the key, decodes it and shows the letters in the green box, with the raw dots and dashes underneath. Mistakes are obvious straight away, which is exactly the feedback you can't get from sending into a dummy load.



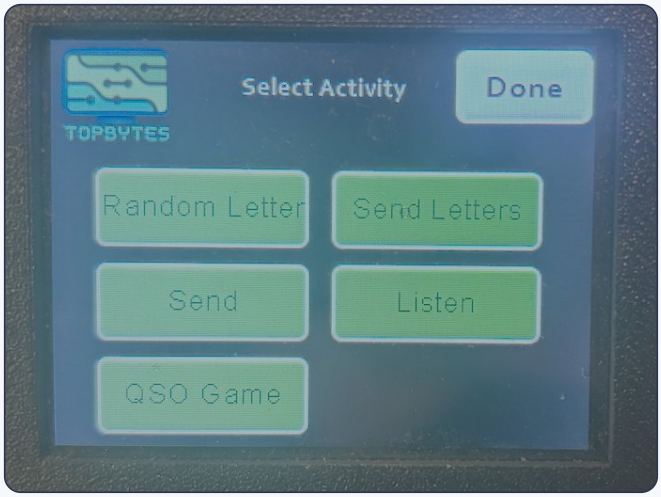
Main screen: decoded characters in green, the raw Morse below. Delete and Clear on the right.

Any key, either hand

- Paddle (iambic) or straight key through a standard 3.5 mm stereo socket
- Right- or left-handed paddle, swapped in software
- Speed from 5 to 60 WPM, with Farnsworth spacing for learners
- Tone and octave of the buzzer, with volume control
- Letters, numbers and punctuation, with an optional extra characters set



Settings on the touchscreen: speed, paddle hand, spacing and language.



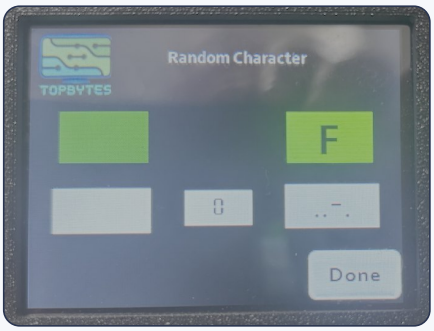
The Games menu (earlier firmware shown; version 3.0 adds Follow Me).

- 3.5 mm output jack: audio tones for headphones or a speaker, or key signals for an external keying circuit
- Three languages on screen: English, French and German
- Web page set-up from any phone, tablet or computer on the same Wi-Fi
- Battery gauge on screen; keeps working while it charges

TRAINING GAMES

Six ways to practise

The games cover both halves of Morse: sending accurately and copying by ear. Each one is a few taps from the main screen, and all of them follow the speed, spacing and Koch level the you have set.



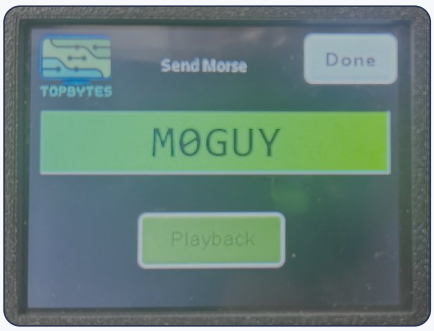
Random Letter

Send the character shown. A running score and percentage correct keep you honest.



Send

Send a random string of the chosen length; it moves on once every character matches.



Send Letters

Type any text and hear it played back as Morse, once or on a loop.



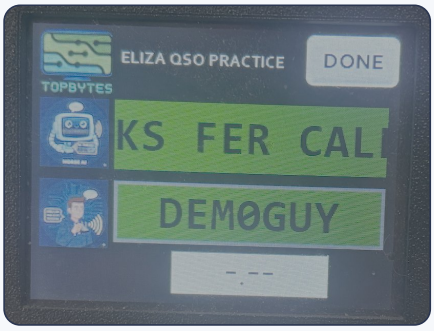
Listen

Copy a random string by ear, then tap to reveal the answer. Loop mode plays a new one every few seconds.



Follow Me

New in 3.0: a memory game. Repeat a sequence that grows by one character each round.



ELIZA QSO

Hold a two-way contact in Morse with an ELIZA partner that answers what you send (page 5).

BUILT-IN LEARNING METHOD

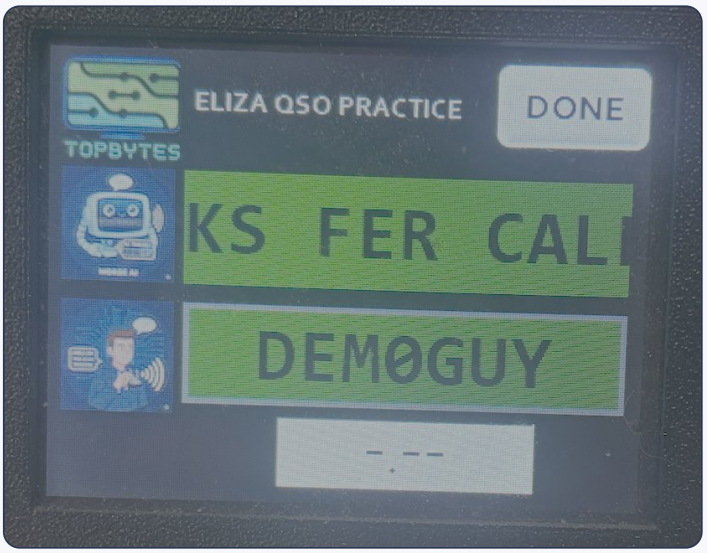
- Koch mode: start with two characters (K and M) and add more, up to level 40; every game then draws only from the characters learned so far
- Farnsworth spacing: characters at full speed with extra space between them, adjustable from 50 to 2000 ms
- Custom word lists: paste up to 200 words (callsigns, QSO phrases, club nets) on the web page and the Listen and Send Letters games use them
- Loop playback: press and hold Play for hands-free listening practice

Game screens are photographed from a unit; some show earlier firmware versions.

ELIZA QSO PARTNER

From first letters to a first QSO

The step that worries new CW operators most is the first real contact. The Morse Trainer's ELIZA mode lets you rehearse it as often as you like: it calls CQ, answers your callsign, exchanges reports and keeps the conversation going until you send 73.



ELIZA QSO practice: ELIZA's text on top (tap to hide it), what you sent below.

Two modes

Learning mode teaches the shape of a contact. It tracks the six things a QSO usually covers and shows progress on each:

RST QTH NAME RIG ANT WX

Practice mode is free conversation with no scoring, for building speed and confidence.

Response delay (5–60 s) and Farnsworth spacing are adjustable, and Done stops ELIZA mid-sentence.

A SUGGESTED LEARNING PATH, ALL ON ONE DEVICE

Koch level 2	▶	Random Letter	▶	Listen	▶	Follow Me	▶	ELIZA QSO
K and M only		send each character		copy by ear		build memory		a full contact

Raise the Koch level and the speed as you improve, and every game grows with you. That makes the Morse Trainer a fit for the whole journey, not just the first week, and an ideal companion for your first key.

HOW A PRACTICE CONTACT RUNS

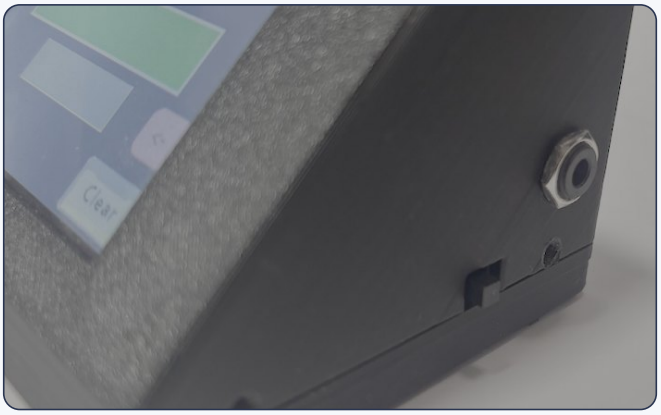
ELIZA	CQ CQ CQ DE M0GUY M0GUY K
YOU	Your callsign, for example DE W1ABC
ELIZA	Greets you with RST, QTH and name, and asks how you copy
YOU	Your report, name, location, rig, antenna and weather
BOTH	Conversation continues; ELIZA answers what you send
YOU	73 to sign off

If ELIZA can't read the callsign it asks for a repeat, just as a real station would: SRI UR CALL NOT COPIED PSE AGN.

HARDWARE, SET-UP AND UPDATES

Small, robust and looked after

A compact desk or travel unit, 91 × 51 × 70 mm, with a colour touchscreen, built-in buzzer and an 18650 Li-ion cell that runs it for around a day. It charges over USB-C and keeps working while it charges.

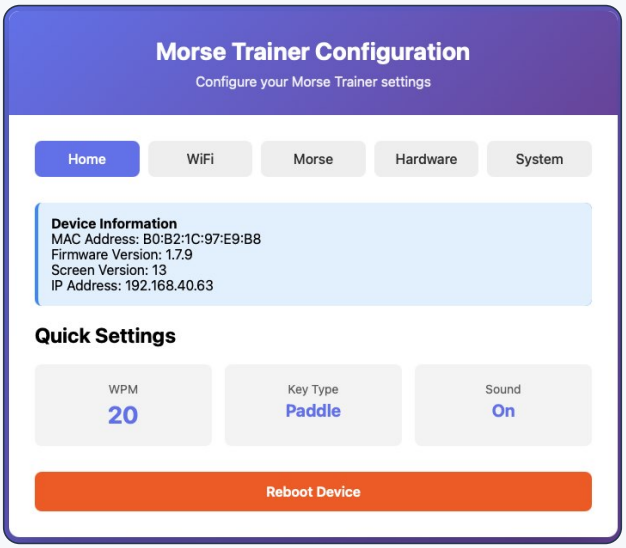


Right side: power switch and the 3.5 mm socket for the key or paddle.



Charging over USB-C; red light while charging, blue when full.

SET-UP FROM ANY PHONE OR COMPUTER

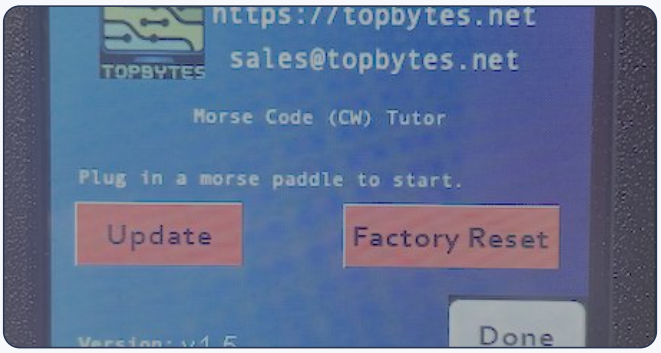


The built-in web page: device details and quick settings.

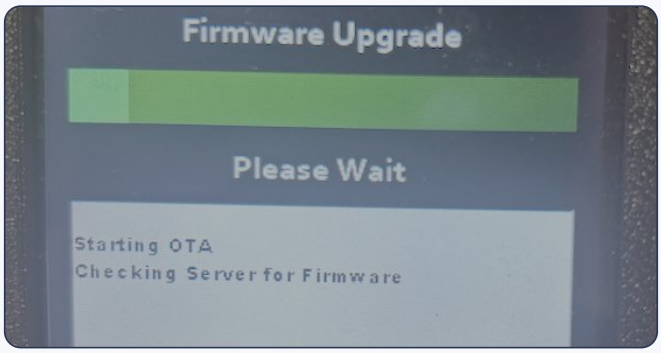
- First power-on: the unit makes its own Wi-Fi network; connect a phone and open morsetrainer.local to set it up
- On the home Wi-Fi: all settings, practice word lists and a factory reset from a browser
- No Wi-Fi needed to use it: Wi-Fi is only for set-up, word lists and updates

Free updates

- One tap on Update in the About screen downloads new firmware for both the processor and the screen
- A browser-based recovery tool in the manual restores a unit if an update is interrupted



About screen, with the Update button (earlier firmware shown).



An over-the-air update in progress.

WHAT OWNERS SAY

It gets people sending



Ian Andrews

“This a great little product and well worth the wait its teaching me a lot about morse code ... Its sturdy and love all the functions on it! This is now my new hobby as Dan at ML&S will tell you! I dont think there's anything on the market that will match it!”

Terry Webster, KD9DWU

“Topbytes Morse Trainer is exactly the teaching aide I needed to start my CW training. I had stalled using other methods and was at the point of giving up ... Then I saw a video from ML&S on the Morse Trainer. I decided to give it a go. And I'm very pleased that I did. I'm able to hear and see what I'm sending and I'm able to retain it. Just what I needed.”

Quoted from the testimonials in the user manual; trimmed (...) for length. Adam Gilmore, G1ZHD, has also published a video review.

WHO IT'S FOR

New licensees

Foundation and Intermediate holders starting CW, who want a real key under their fingers from day one.

Returning operators

Lapsed CW operators rebuilding speed, with Koch, Farnsworth and the ELIZA QSO partner.

Clubs and courses

Club training nights and Morse classes: one trainer per student, no laptops or apps to set up.

New key or paddle?

Something to practise on before going on air, with every character you send decoded on screen.

ON SHOW AT THE NATIONAL RADIO CENTRE



The NRC unit, with paddle and Morse chart.

A Morse Trainer has been donated to the RSGB's National Radio Centre at Bletchley Park, where it sits on the reception desk for any visitor to try, with a 3D-printed paddle and a Morse reference chart. If you're visiting, pick up the paddle and the screen shows what you sent.

SPECIFICATION

Product details

Model	Morse Trainer, MORSETRAINER-01; firmware 3.0
Display	Colour touchscreen (Nextion HMI)
Key input	3.5 mm stereo socket: paddle (iambic, left or right hand) or straight key
Output	Built-in buzzer (adjustable tone, octave, volume) and 3.5 mm jack: audio or key signal
Speed	5–60 WPM; Farnsworth spacing 50–2000 ms
Games	Random Letter, Send, Send Letters, Listen, Follow Me, ELIZA QSO; Koch levels 2–40
Languages	English, French, German
Battery	18650 Li-ion, around a day per charge; USB-C charging with red/blue charge lights
Wi-Fi	2.4 GHz, for set-up web page, practice word lists and updates; not needed for use
Size	91 × 51 × 70 mm; approx. 150–200 g with battery
Updates	Free over-the-air updates for processor and screen; browser-based recovery
Use	Indoor Morse training device for the desk, club room or travel

WHAT YOU NEED

- A straight key or paddle with a 3.5 mm stereo plug
- A USB-C charger to top up the battery
- Wi-Fi only for set-up, word lists and updates

HELP AND SUPPORT

- User manual, release notes and recovery tool at topbytes.net/morse
- Email support@topbytes.net

GOES WELL WITH

- DX Spotter: live DX cluster spots, at a glance, on a high-contrast OLED.
- DX Spotter Pro: DX cluster spots, live propagation and DX alerts on a 7-inch touchscreen.

Pricing and availability: Martin Lynch & Sons (ML&S)

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