

The first message ever sent using Morse code was *"What hath God wrought?"*. This message was sent by Samuel Morse on May 24, 1844, from Washington, D.C. to Baltimore.

A few seconds later the reply arrived. *"We've been trying to reach you about your car warranty."*

Beginning Morse Code



TL;DR

- www.keithford.com/files
- Learn by sound only, no picture or word associations
- Practice – Patience – Persistence
- It's not easy – take a friend

Hello

- Keith Ford
- K4KEF@keithford.com



Why Me?



- ▶ 1983 – memorized 5wpm Morse code for Novice license

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~~2024~~ now I am learning Morse code...
2025

again

Hello

- ▶ Jerry Poplin
- ▶ KF4BOE
- ▶ My story is very similar to Keith's

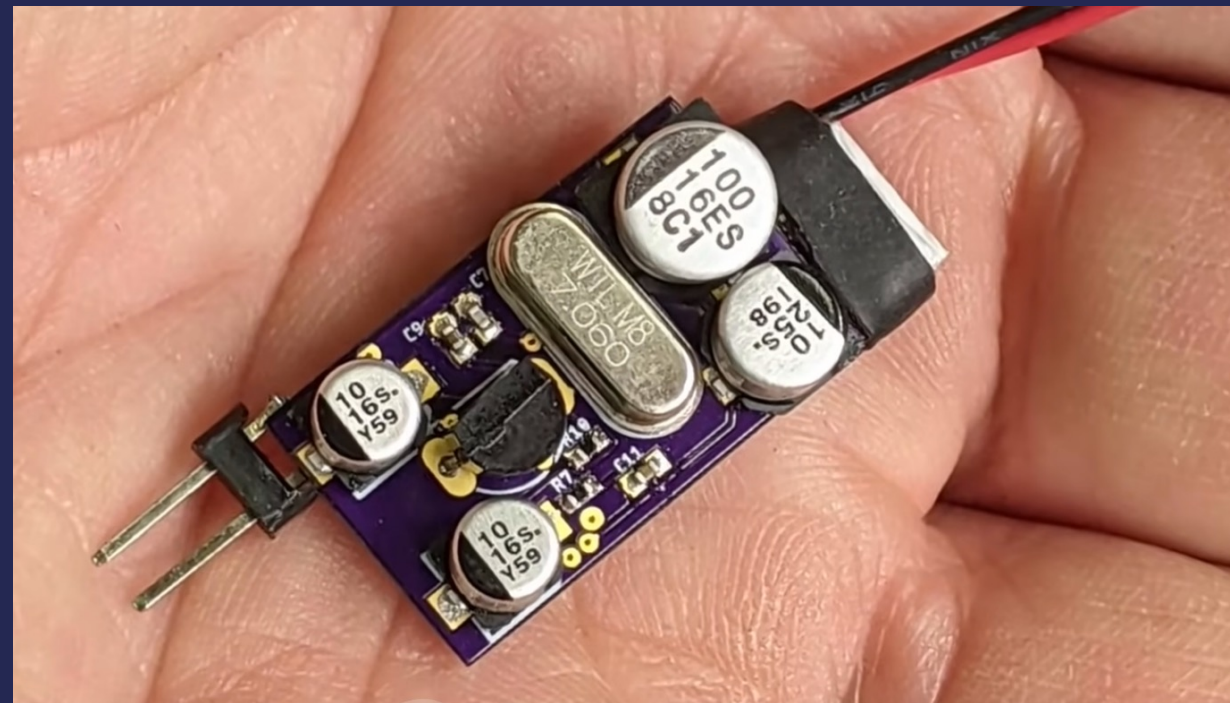
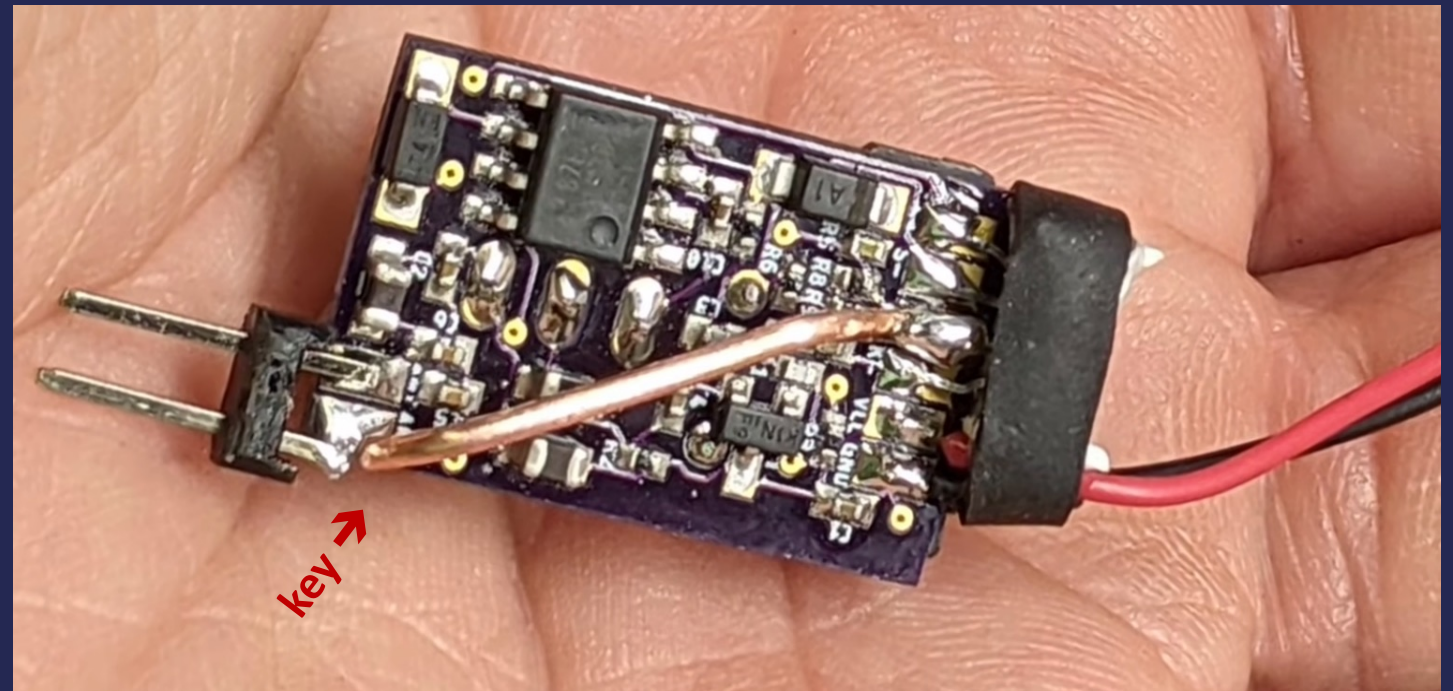


Why Learn Morse Code

- Challenging → Rewarding
- POTA / SOTA / IOTA
- More bang per watt – bandwidth 3kHz vs 100Hz
 - Easier DX
 - QRP (<5W) & QRPp (<1W)
- Gear can be small, simple, and cheap



Micro SOTA
850 mW
2.7 grams





It's Magic

- Modern, but old
- Used by generations past
- Free as in freedom



How **NOT** To Learn Morse Code

- Morse code is an aural language, you need to learn it with your ears, **not your eyes**.
- Do not use word or picture association
- Attempts to learn it using any visual means may work initially but will most likely cause you to hit a wall when trying to increase your speed.



DIT-DAH

DAH-DIT-DIT-DIT

DAH-DIT-DAH-DIT

DAH-DIT-DIT

DIT

DIT-DIT-DAH-DIT

DAD-DAH-DIT



DIT-DIT-DIT-DIT

DIT-DIT

DIT-DAH-DAH-DAH

DAH-DIT-DAH

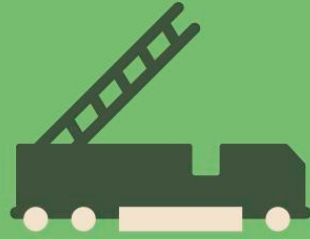
DIT-DAH-DIT-DIT

DAH-DAH

DAH-DIT



Eye



Firetruck



Giraffe



Insect



Jet



Kite

A ALL A-BOARD <i>Muddy Waters</i>	B BULL-ET THE BLUE SKY <i>U2</i>	C CRA-ZY WORDS CRA-ZY TUNE <i>The Nitty Gritty Dirt Band</i>	D DRAG-GIN' THE LINE <i>Tommy James</i>
E EYES <i>Rogue Wave</i>	F FULL MOON EMP-TY HEART <i>Belly</i>	G GO-ING GO-ING GONE <i>Information Society</i>	H HIT THE ROAD JACK <i>Ray Charles</i>
I IRAN <i>A Flock Of Seagulls</i>	J JOHN WES-LEY HARD-ING (mon-o) <i>Bob Dylan</i>	K KILL-ING ME SOFT-LY <i>The Fugees</i>	L LOOK BE-FORE YOU CROSS <i>Evi-Edna Ogholi</i>
M MAN-IC MON-DAY <i>The Bangles</i>	N NO-WHERE MAN <i>The Beatles</i>	O OR-ANGE BLOS-SOM SPEC-IAL <i>Johnny Cash</i>	P PINK LIT-MUS PA-PER SHIRT <i>Strange Turn</i>

C ca tas tro phic

M mail man

gin ger bread

wikiHow

Learn Morse Code In 1 Minute

E ···	T —
I ··	M — —
S ...	O — — —
H ····	

Minions PARADE Morse Code

● — — — — ● ● ● ● — — ● ●

A ALL A-BOARD Muddy Waters
B BULL-ET THE BLUE SKY U2
C CRA-ZY WO... The Nitty
D DRAG-GIN' THE LINE Tommy James
E EYES Rogue Wave
F FULL MOON EMP-TY HEART Belly
G G... ONE... ety
H HIT THE ROAD JACK Ray Charles
I I RAN A Flock Of Seagulls
J JOHN WES-LEY HARD-ING (mo... Bob Dylan
K K... ME SOFT-LY Fugees
L LOOK BE-FORE YOU CROSS Evi-Edna Ogholi
M MAN-IC MON-DAY The Bangles
N NO-WHERE MAN The Beatles
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tro phic
C
mail
bread
wikiHow

Learn Morse Code
In 1 Minute

E . . .
I
S
H

Minion
PARADE
Morse
Code





How To Learn Morse Code

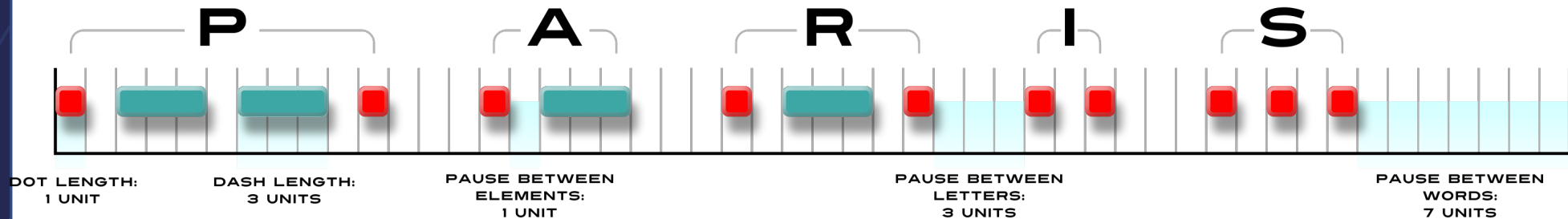
- ▶ If you ask 10 people how to learn Morse code, you'll get 12 answers.
- ▶ Practice
- ▶ Patience
- ▶ Persistence

Methods

- ▶ Learn by sound of the letter (do not count dits & dahs)
 - ▶ L is not “dot dash dot dot”, but “di-dah-di-dit”
- ▶ Koch – learn characters in certain order, start with two, add more as you become proficient
- ▶ Farnsworth – target character speed, adjust character spacing
 - ▶ 20/10 is common, we suggest using 30wpm character speed
- ▶ Most Apps support Farnsworth and Koch
- ▶ Now, what is character speed and WPM?

What is Morse Code?

PROPERLY SPACED MORSE CODE TIMING



“PARIS” [at 50 units in length] is used to represent 1 word which can then be divided into a minute to get the WPM rate.

di - dah - dah - dit

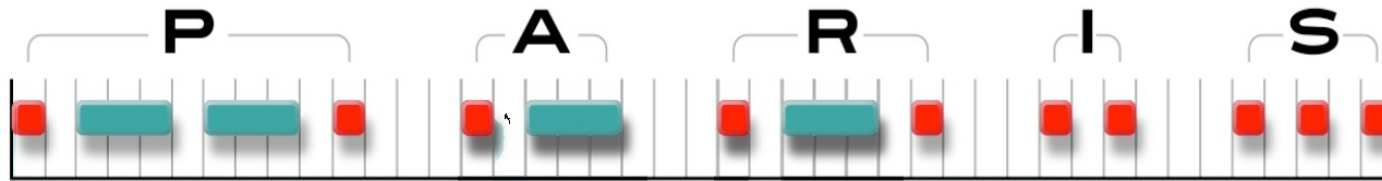
di - dah

di - dah - dit

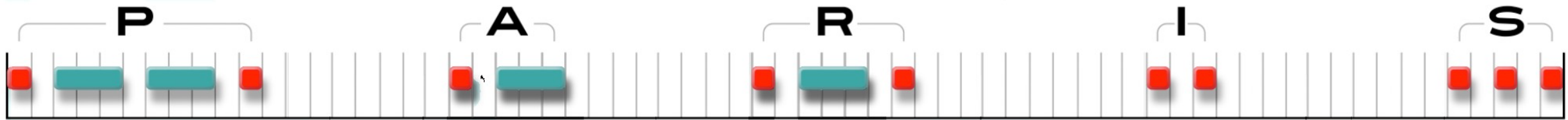
di - dit

di - di - dit

How Does Farnsworth Help?



How Does Farnsworth Help?





Helpful Tools

► Hardware

- Code Practice Oscillators

- Decoders

 - Practice correct timing when learning to send with a straight key

- Morserino-32 kit

 - Koch Trainer, Echo Trainer, CW Decoder

 - CW Transceiver using WiFi

 - [qsobot.online](https://www.qsobot.com/)

M32 Pocket

- ▶ *“We are currently testing the final prototype - that should be done by the end of the month. I cannot say right now how long procurement of PCBs and other parts in sufficient quantities will take, but it should not be too far out!”* Willi 2025-07-18



Sending: Key vs Paddles

- Be comfortable with copying code before you start to practice sending.
- When one uses a straight key, one must use precise timing since the code is produced by physical manipulation. A paddle is different from a straight key since the difference in timing between the “dits” and the “dahs” is built into the unit.
- Learn sending with a straight key to ingrain these timings.



Apps

➤ Web Apps

- lcwo.net
- longislandcwclub.org
- morsecode.ninja
- morsecode.world
- learnmorsecode.org

➤ Mobile Apps

- Morse Maven
- Ham Morse
- Morse Toad
- Morse Machine
- Morse Mentor Pro
- Morse Mania

➤ Desktop Apps

- CW Trainer by G4FON

Some apps will send real QSOs, current headlines, and let you upload your own content.

They can also simulate real listening conditions such as band noise and signal fade.

*Warning about keyboard usage
with some apps*

Tips



Use both Koch and Farnsworth methods at the same time.



Practice 10-15 minutes twice a day.
* Habit Stacking *



CW operators will have “accents” so listen to real QSOs.
No radio? Try websdr.org
Find slow operators at hamalert.org



If you struggle, seek a practice buddy or join an online CW club. This can add even more fun.



LICW TEACHERS OF MORSE CODE

Scott Wooten, KW4NJA

A LITTLE BIT ABOUT OUR CLUB

➤ **Founded in 2018**

- More CW operators needed / Field Day in 2017
- A way to give back to the community
- Goal: 50 members / Long Island area

➤ **More successful than we ever dreamed**

- Over 6000 members
- All 50 US States
- Over 60 countries around the world
- Over 100 Instructors and Moderators
- Over 150 Classes/Forums weekly on Zoom
- English & Spanish



CLUB RESOURCES

- LICW YouTube Channel
- LICW Newsletter
- LICW Facebook Page
- LICW This Week Podcast
- LICW Discord Server (Chat, Sked)
- LICW DMR: TGIF Network, Talk Group
- LICW Dropbox
- LICW Groups.io
- LICW Morse Practice Page
- LICW VBand Channel Page
- LICW Challenge Page
- LICW Academic Downloads

OVER 400 YL'S

- Instructors
- Moderators
- Other leadership roles

*Cathy W4CMG & Anne KC9YL
accepting award on behalf
of LICW*



KIDS PROGRAM

- › Developed during COVID
- › Ages 5 to 17
- › Half of our students are girls
- › Students from U.S., Canada, U.K., and Hungary
- › Adult curriculum modified for how kids learn
- › Over 600 kids have learned CW so far





HAMRADIO DUO

Mike N4FFF and Becky N4BKY

A YouTube video thumbnail featuring two hosts, a woman and a man, in a radio studio. The woman is holding a handheld radio. The video title is 'Step-By-Step Guide to Learning CW Morse Code | Specific steps, tips, ...'. The video is marked as 'Watch later' and 'Share'. The call to action text 'LEARN MORSE CODE' is prominently displayed at the bottom in large red letters. The names 'N4BKY' and 'N4FFF' are overlaid in green text on the woman and man respectively. A red play button icon is centered over the video. The text 'IN 2025' is overlaid in white text on the man's chest. At the bottom left, it says 'Watch on YouTube' with the YouTube logo.

Step-By-Step Guide to Learning CW Morse Code | Specific steps, tips, ...

Watch later Share

N4BKY N4FFF

IN 2025

LEARN MORSE CODE

Watch on YouTube

Fun



Fun (in case we can't play the video)



Fun (in case we can't play the video)



**SO MANY
NEW
ADVENTURES**



**THAT WE
WOULDN'T
HAVE HAD**



**THANK YOU
TO ALL
THE GREAT
PEOPLE**



**IN THE
MORSE CODE
AND
HAM RADIO
COMMUNITY**

Getting Started

learnmorsecode.org

- for anyone wanting to learn
- why
- learning
- getting licensed
- tools and games
- classes and clubs



First step to learn morse code

Our recommendation: Morse Mania

- ▣ Makes learning a game
- ▣ Learn by sound (set character speed to 30wpm+)
- ▣ Don't aim to get 100% right – just get 50-70% right
- ▣ Have fun!

One more thing: Our Key

We made a key, the Duo Straight Key One.

shop.hamradioduo.com





Questions?

Practice, patience, and persistence are the keys to mastering any language.

— Sandrine Elliot