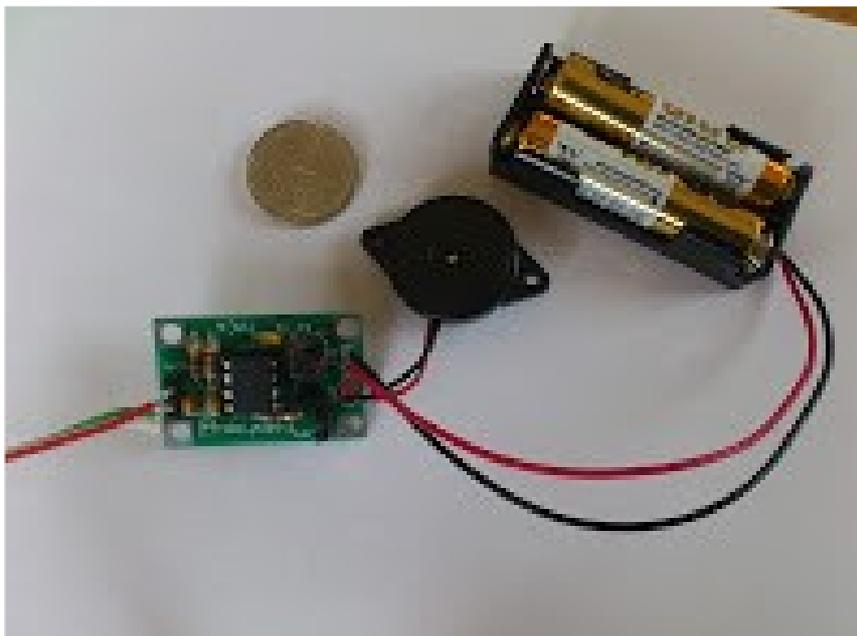# YACK 2 – memory morse keyer

Iambic keyer ideal for CW operation now !!!

Firmware version by OK1QO and OK2OH

- 4 memories with fast access, memory is played after "E" "I" "S" "H" keyed on push button
- transmited memory can be repeated by pressing the button
- fast change of speed -33%, or continuous change
- callsing trainer
- help is in keyer as command "Q", great for portable operation
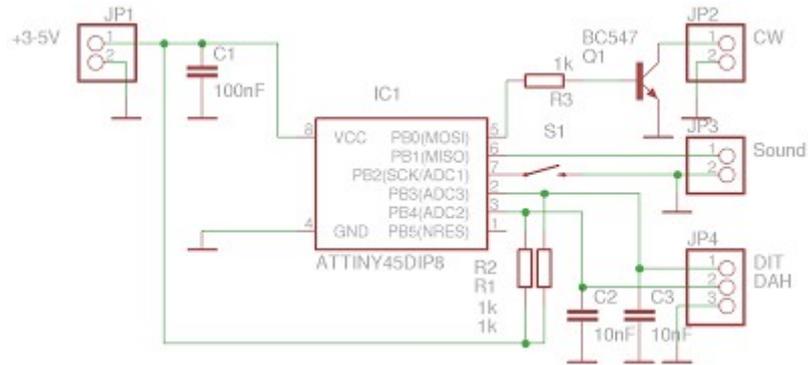- 3 to 5V power supply

What what was removed from previous versions of YACK (from DK3LJ and from OK1CDJ)
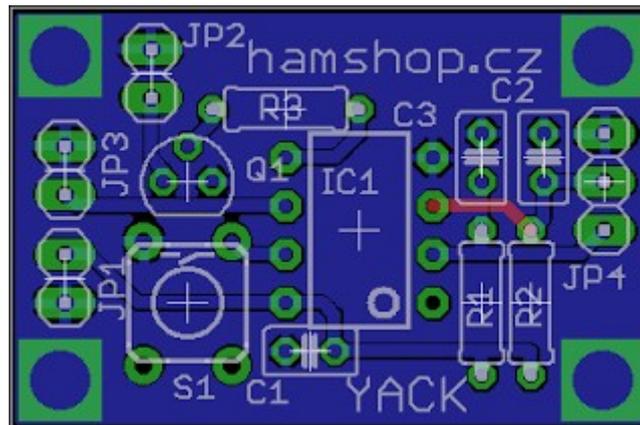Beacon mode, Farnsworth delay and dash priority.
Keying is only positive now (negative keying discharge the battery), max. 14V, 50mA.

Keyer uses ATMEL TINY45, current is 1 mA (S off) to 8 mA (S on).
After 15 seconds of inactivity is a current consumption below 0.1 mA, you don't need remove battery.

Schematic

PCB

Building is very easy, only few parts...

OPERATION:

Changing speed: push and hold button and enter dots or dashes.

    for fast change speed - 33% push and hold button and send dit,dash by squeezing paddle,

    speed changes is changed back by same way.

Entering the by push button "e" (dot - short press) immediately transmits the memory 1,

    "i" (.. - two short presses) sends memory 2 and so on.

    For example, to memory "1" record only call OK1XYZ,

    to "2" CQ CQ CQ,

    to "3" = QTH BRNO Brno TOM TOM = NAME =

    to "4" = TNX INFO = HR RIG 20W 20W ANT BEAM BEAM =

Repeat running memory:

CQ is transmitted by press of ".." on the push button, but when you long press button during transmitting of memory, the memory is repeated.

Paddle interrupts the transmission from memory inmediately.

COMMANDS:

Push button to min. 0.3s, key answer "?" And enter the command in CW by paddle:

(Keying is off during entering commands, sidetone is turned on.)

Q instruction in the CW U tune - key for 20s break by ./-

W send speed in WPM X reversing traps

K key: tx on/off S speaker on/off

P tone pitch: tone cue C training mode - sending callsign and wants to repeat.

1 record memory 1, similar commands 2, 3, 4th.

 Maximum number of characters is 50-50-50-80.

A - B - L: iambic keying type A, B (recommended), Ultimatic.

R reset: speed 15WPM, X off, K on, S on, P 800Hz. Memories are not erased.

Other characters are not commands, a key immediately sends an "E" and is ready for keying.

Command mode quits after an invalid command immediately or after 1s without command input.

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