

NR7Y CW MOD

Turning a \$28 Quansheng HT into a 2 m / 70 cm CW
VHF/UHF radio

AM/FM/USB w/Code Practice Oscillator



Firmware + optional paddle rework

What the NR7Y firmware adds

TRUE CW KEYING

Fast RX/TX switching for real-time Morse keying

BUILT-IN KEYS

Iambic A/B plus other keying modes; internal button paddles

EXTERNAL PADDLE

Direct paddle support with hardware rework; CEC resistor-network cable option

CW TOOLS

Message macros, code-practice mode and a 1.7 kHz filter option

Two ways to key CW



NO SOLDERING

Use PTT + Side 1 as paddles, or use a compatible CEC resistor-network paddle cable.

HARDWARE REWORK

The NR7Y paddle rework lets a standard external paddle connect directly. It requires opening the radio and small-component soldering.

Know your version before you flash

UV-K5 V1

Also sold as K5, K5(8), K5(99) and K6.

BEST CHECK

Remove the battery. V1 labels do NOT say “V3”. Inside, the PCB is marked 1.x (commonly 1.4, 1.6 or 1.8).

→ Use the V1 firmware + V1 rework instructions

UV-K5 V3 / K1

V3 looks nearly identical to V1. K1 uses the same NR7Y firmware family as V3.

BEST CHECK

Behind the battery, a V3 label says “V3”. Inside, normal V3 PCBs are marked V2.x (2.0 / 2.1 observed).

→ Use the V3/K1 firmware + matching paddle instructions

V2 / ODD VARIANT

STOP if the markings conflict.

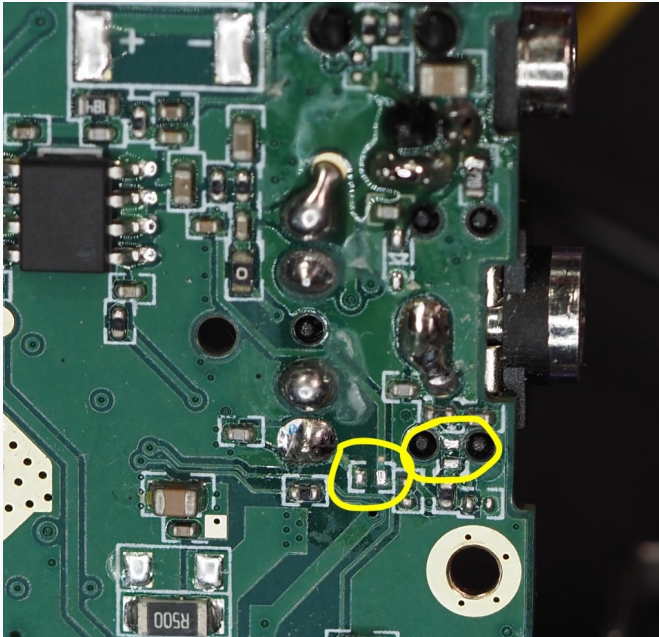
NR7Y documents radios labeled V3 but carrying a V1.8 PCB and a different MCU; some have “V2” handwritten on the PCB.

These V2 radios work with NEITHER posted firmware build.

Rule: identify first → download second → flash last.

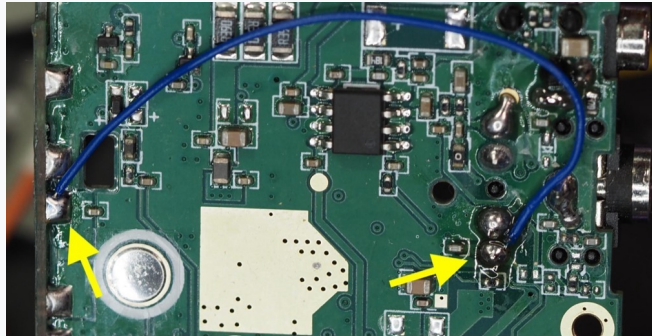
UV-K5 V1 — Paddle Rework

1. Remove the two resistors



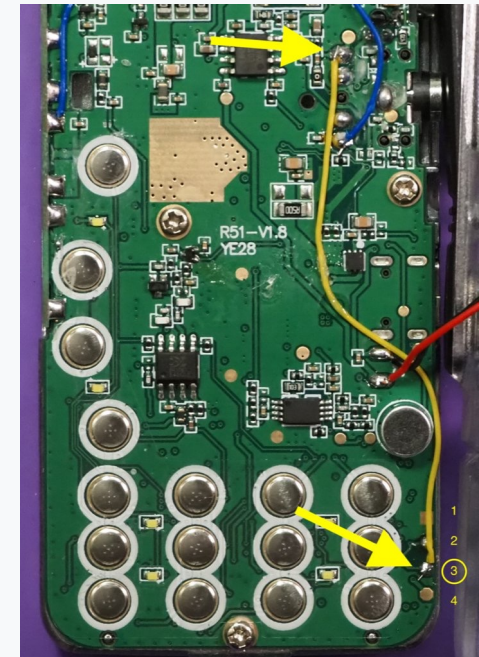
Remove the two SMD resistors circled in yellow.

2. Install main-board jumper



Use the solder points identified by the arrows in the original photo.

3. Route to keypad-board pad 3

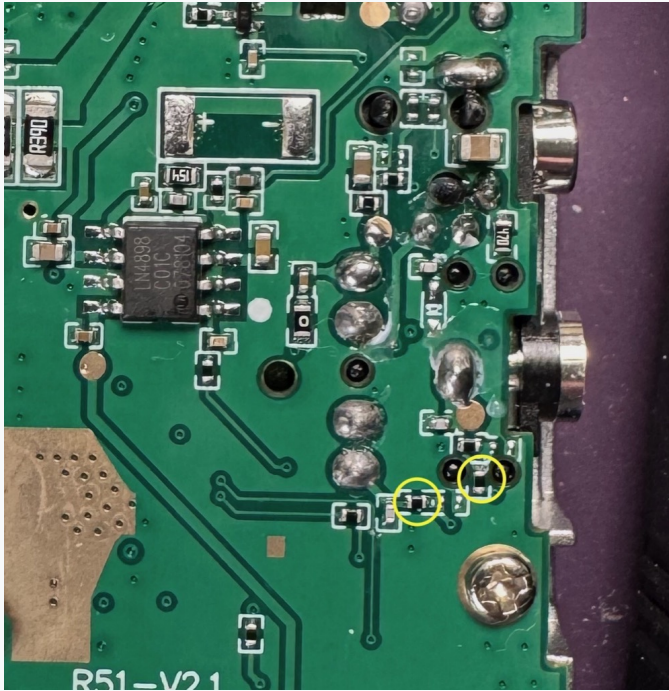


Complete the rework at pad 3 as shown; keep wiring clear of keypad contacts.

Use the V1 instructions only after confirming the radio is V1 hardware.

UV-K5 V3 — Paddle Rework

1. Remove the two resistors



Remove the two SMD resistors circled in yellow in the original V3 photo.

2. Completed V3 rework / keypad-board connection



Use the completed-board photo as the wiring reference. The full lower edge and keypad-pad area remain visible.

V3: confirm the board version first. Use only the V3/K1 firmware and matching NR7Y rework instructions.

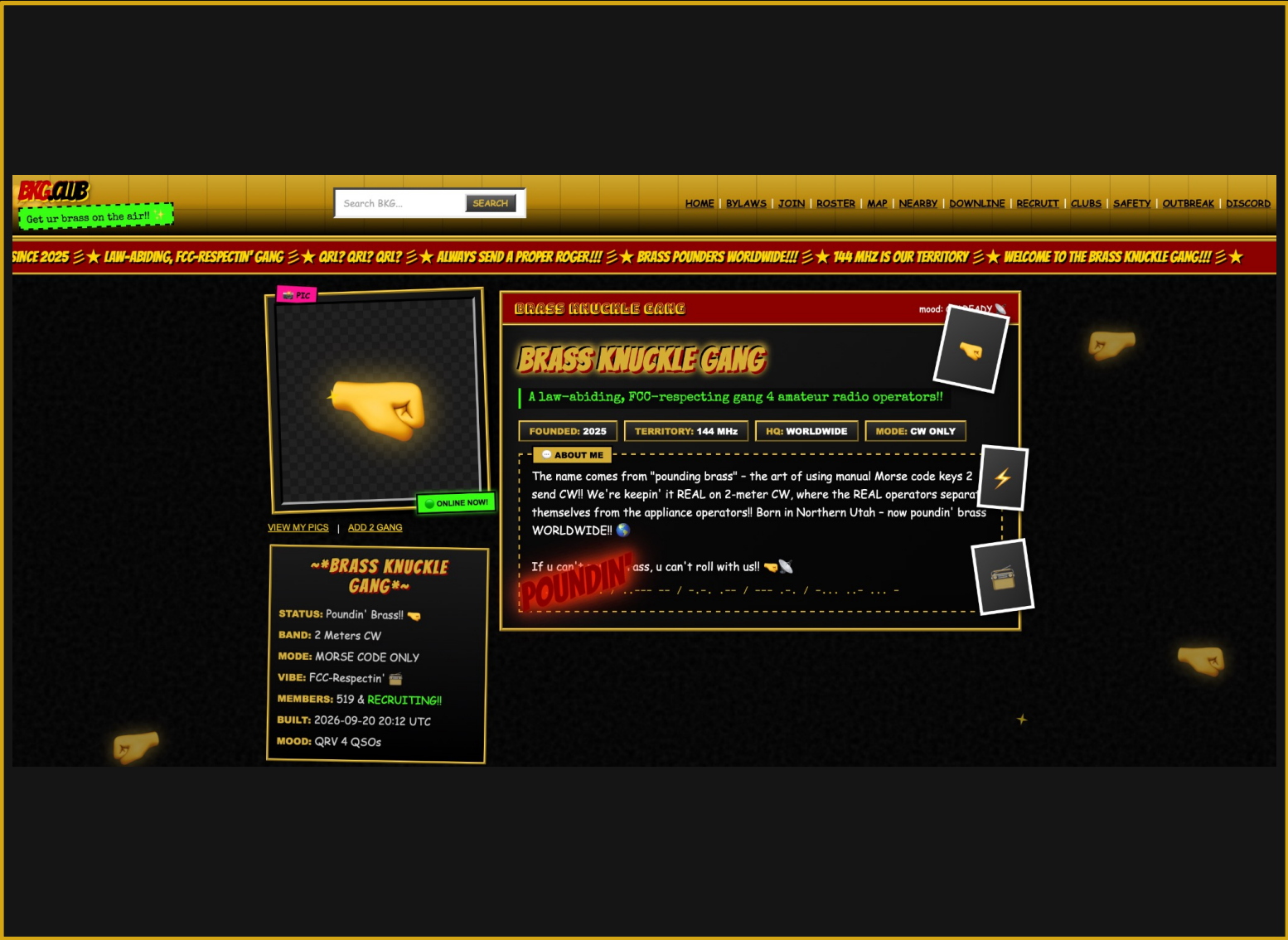
Flashing the new firmware

- 1 IDENTIFY** Confirm V1 or V3/K1 before downloading anything.
- 2 BACK UP** Boot normally and dump the factory calibration data; save it by radio serial number.
- 3 GET THE RIGHT BIN** V1: nr7y_1.2.packed.bin • V3/K1: nr7y.k1-k5v3.v1.3.bin
- 4 ENTER FLASH MODE** Radio OFF → hold PTT → power ON. Flashlight LED on; display stays blank.
- 5 USE THE RIGHT TOOL** V1: UVTools / n7six K5 V1 / K5TOOL. V3/K1: UVTools2 / n7six K1-K5 V2.
- 6 FLASH + REBOOT** Program the radio, wait for completion, then reboot into NR7Y firmware.

IDENTIFY → BACK UP → CORRECT BINARY → CORRECT FLASH MODE → FLASH

WHY PUT CW ON A HANDHELD?

Because 2-meter CW is alive.



BRASS KNUCKLE GANG 2 METER CW OR BUST

FOUNDED 2025

TERRITORY 144 MHz

MODE CW ONLY

MEMBERS 519 & RECRUITING

HOW TO JOIN

- 1 Work a BKG member on 2m CW
- 2 Send UTC date/time + band
- 3 Receive your BKG number

GET UR BRASS ON THE AIR!!

NR7Y project: github.com/zerodrool/uv-k5-firmware-custom-cw

<https://www.bkg.club/index.html#home>