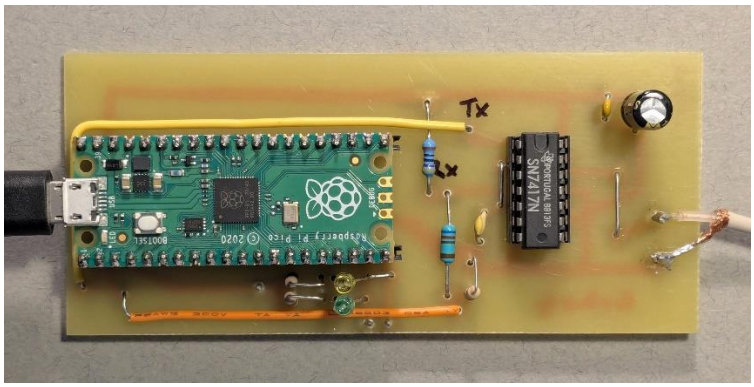
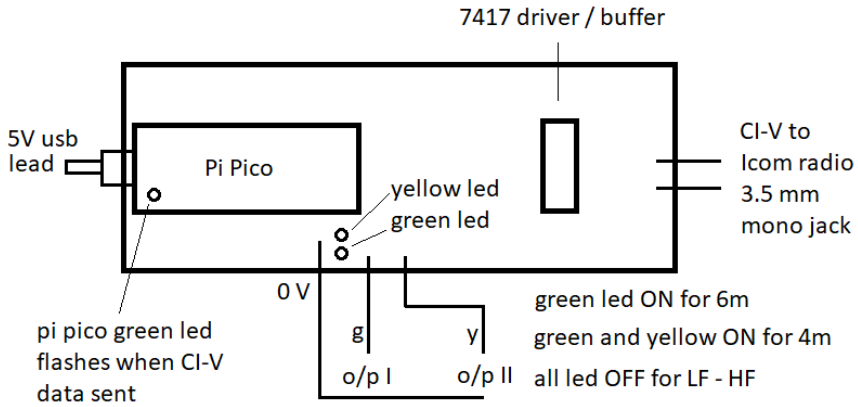
IC7300 & IC9700 CI-V control unit - pi Pico to Icom transceiver

By Jonathan Hare G1EXG Feb 2026





Specifications

* Below 10m band – all relays are OFF = HF antenna (all o/p and leds OFF)

* 50 – 52 MHz – relay I o/p ON = 6 m antenna (green led ON)

* 70 – 72 MHz – relay I and II o/p ON = 4 m antenna (green and yellow led ON)

* Below 7 MHz power dropped to 5 % (5 watt)

* Otherwise, power set to 100 % (100 watts)

* on-board green led on pi Pico flashes when CI-V data sent (once every 5 seconds)

Ensure 3.5 mm mono jack is fitted to the (correct) CI-V port on the radio.

The pi Pico needs 5V from a standard usb psu. I have fitted it with a power only lead (i.e. no data lead). Perhaps you can use the usb on the radio if it is not in use. This might then turn off pi Pico when the radio is OFF and so power down the RF relays (CHECK).

The pi Pico has 3V logic level and so output I and II are 3V logic levels. The 7417 buffer / driver chip runs at 5V for the radio. Use Darlington drivers to power the relays but make sure the Darlington drivers have suitable resistors on the input bases.

I have only tried the unit on receive, not on a networked radio and not with RF around. It may need to go in a metal box and have ferrite beads on the pi Pico usb lead and other i/p and o/p etc.