

A review of the VK4GHZ Icom Multi Send by Scott Watson VK4CZ (July 7, 2013)

The new VK4GHZ Icom Multi Send provides a simple and effective means of automatically controlling the PTT required for external amplifiers for each of the 2m, 70cm & 23cm bands without the need to swap plugs, whilst also allowing for continued use of the ACC socket for digital modes.

The kit is supplied with the PCB populated and all other parts and an enclosure required to complete the three final steps to have the Multi Send operational. These three steps are:

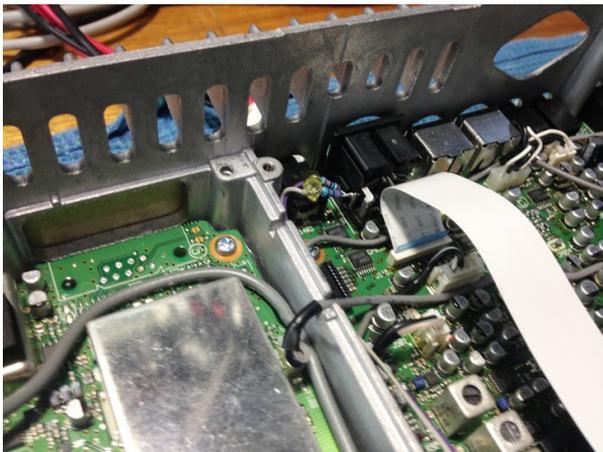


1. Internal modification of the IC-910 to provide band reference voltages to the ACC socket (Pin 1)
2. Final assembly of the Multi Send into a case, and
3. 8 pin DIN Patch lead.

The instructions provided are clear and easy to follow, enabling anyone with a basic technical knowledge to complete the all three steps (including the internal modifications to the IC-910H).

My observations of each step follow.

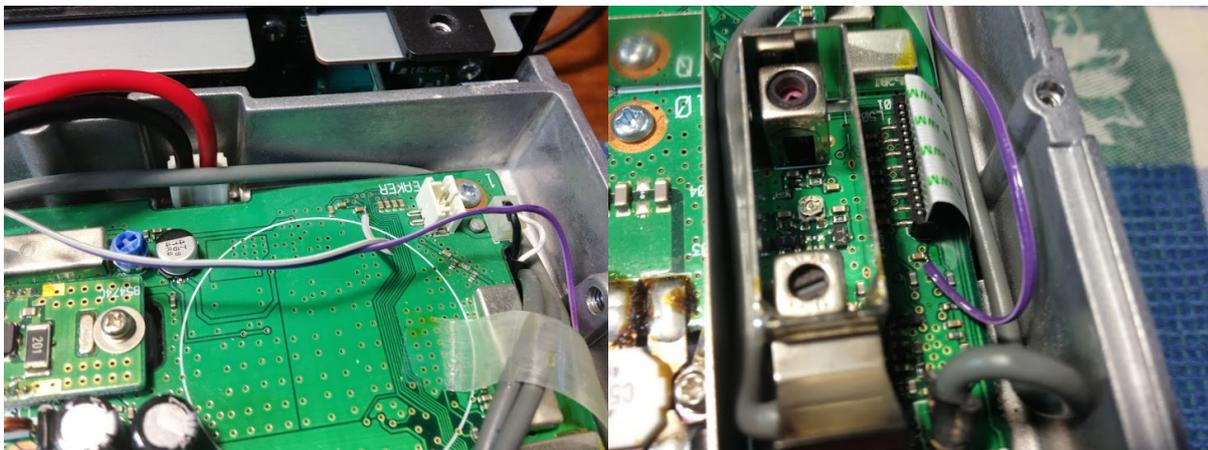
Internal modification of the IC-910 - the instructions and photos provided were easy to follow.



When connecting the two resistors on Pin 1 of the ACC socket I found it easier to twist the tails of the resistors together, tin and trim them. Tin Pin 1 and then solder the resistors to it. A small dab of hot glue on the resistors (as recommended) holds them firmly and insulates them from potential shorts to the 1296MHz module.

The instructions clearly highlight the specific surface mount capacitors from which the band reference voltages are sourced.

The surface mount devices are small and require a steady hand, but are easily accessed once the PA section shield is removed. Stripping, tinning and trimming the wires made this stage quicker and easier to solder.



Final assembly of the Multi Send - attention to the measurements and care taken when drilling each of the holes is required. The enclosure has a protective plastic coat. Use a fin



It is recommended that the rear connections be completed first. The instructions indicated drilling separate 17mm holes for the DIN sockets, but I found it easier to cut a square section from the rear panel and file to final size.

Once the rear panel has been completed, position and mark the holes for mounting the PCB. Then mark and drill the holes for the LEDs. Once this was completed I ran around each of the holes and the cut-out section with a black permanent marker to 'match' the exposed aluminium to the matt black of the enclosure.

Mount the board on the posts provided, and solder the LEDs (a quick clue: the LED colours match the output RCA connectors except 1296MHz LED is green, RCA is black).

8 pin DIN patch lead – a simple solder job. Use the shield for ground (pin 2), then on remaining pins be sure to match colours on each plug. You will have two spare wires. Trim and remove once finished.

You're now ready to install and test the Multi Send.

This process is simple. Just connect the 8 pin DIN to either of the sockets on the rear of the Multi Send and the other to the ACC port on the IC-910H. Have 144MHz in the main VFO and push transmit. The red LED should illuminate. Change the main VFO to 432MHz and push transmit. The yellow LED should illuminate. And if you have the 1,296MHz option fitted finally change the main VFO to 1,296MHz and push transmit. The green LED should illuminate. If this is confirmed, just plug in your amplifiers and interface and play!

