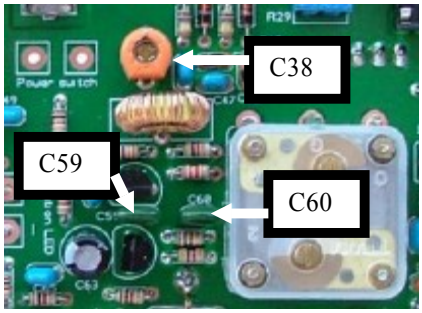
MKARS80 VFO drift modification

Background
The MKARS80 radio was designed as a low cost value for money kit, components were carefully selected for the best cost to performance ratio.

Ever since the first prototypes were built VFO thermal drift has been experienced, to some extent this is controlled by the Huff and Puff stabiliser but during the warm up period of 30 minutes or more considerable drift can be experienced. Additional drift may be experienced if transmitting with long overs (or CW) due to heating from the TX stages.

The VFO components were investigated by Brian G8DIU who reported that by simply replacing the feedback capacitors C59 and C60 with polystyrene types a significant improvement in stability could be achieved. After evaluating this modification for myself and finding a significant improvement I researched lower cost capacitors eventually choosing NP0 ceramic types, these should have similar if not better stability to polystyrene.

Modification
This involves the removal of existing capacitors and replacement with those supplied followed by adjustment of C38 for correct tuning range.



Instructions:
1. Dismantle and remove PCB from the case.
2. Locate and remove the green Mylar capacitors C59 and C60; the best way to remove them may be to cut down the centre with a sharp pair of cutters and unsolder one leg at a time.
3. Clear the holes with de-solder braid; heating the pad and passing a piece of wire through the hole will help to leave the it solder free.
4. Fit the replacement 1nF NP0 capacitors.
5. Power up and set C38 for the correct tuning range; note that this will have altered after replacing the capacitors.
6. Reassemble the case; be careful with Q1 insulating washer to make sure that the tab doesn't short to case. Confirm no shorts with a meter.
7. Test operation.

Please give me feedback as to the improvement in VFO thermal stability, I have tried it on two radios; one hardly drifts at all while the other does but is significantly improved.