

# NARC and the MKARS 80 - February 2009



## 80m SSB Transceiver (also optional CW adapter)

### Introduction

NARC have adopted the Milton Keynes Amateur Radio Society MKARS 80 (pronounced 'em Kars 80') 80m ssb kit as a club construction project, where experienced 'old hands' at construction are asked to help those who have built little or nothing before - at the time of writing 28 people have bought or ordered kits from the club.

This guide is intended to supplement the excellent documentation prepared for this kit by the designers (downloadable from [www.radio-kits.co.uk](http://www.radio-kits.co.uk)) and is based on my notes both from Steve G6ALU's talk and my own observations from assembly of the kit and general constructional experience. It is not meant as a comprehensive guide of construction for beginners but to help those who have done some soldering before (such as on the novice, intermediate or Bright Sparks) and it will grow and evolve with more experience from club members.

### Notes so far...

- Start by carefully identifying components against the list and check-boxes on the Radio-Kits instructions - best to open one pack at a time. You will find it easier to mount lowest components first and then build upwards.
  - David G7URP can supply a FREE foam pad to help hold parts on the PCB whilst turning upside down to solder - just ask!
  - Use plenty of heat to ensure varnish is burnt off the wire for the coils and tin the wires before soldering into PCB.
  - If you intend to make the CW adapter/filter when available I suggest you do not drill the case until you receive this adapter
  - You can choose to personalise your MKARS80 mount the PCB into a different case which might also include a speaker or battery pack, but there are considerations.....  
From experience with these sorts of LCD display around RF, recommend you do not extend wires from display more than 150mm and the potentiometers the same - may need to screen in foil if RF 'noisy'. The variable capacitor wires should not really be extended at all, but there are two options I discussed with Steve, one is to mount the capacitor upright and add an extended shaft or you could try using a Varicap diode instead of the variable capacitor. Not really for the beginner, but a varicap diode changes its capacitance with change in applied voltage and once voltage controlled can be wired to a potentiometer for tuning.
- More to come .... share your experience with everyone else!*

## **Suggested minimal tools required for assembly** (only for those who do not have already)

- Soldering iron medium tip, 25W min (G7URP suggests Antex XS25 type - eg Maplin, Rapid 85-5090 £16.38 or better still 85-0848 with Silicone flexible and heat proof cable for a few £ more)
  - Flux cored solder - 22swg (recommended) to 18 swg maximum (G7URP suggests 100gram reel Rapid 85-0592 £3.10)
  - Good quality side cutters (G7URP suggests Rapid 85-0230 around £3)
- Also recommend you have a clear bench or tray and good light - possibly a magnifier or magnifier light, available from Craft and model shops/fairs, Maplin, Rapid etc.

## **Manual**

- If you do not have access to the internet or a printer to print the construction guide, David is willing to print it out using laser printing at cost price.

## **Useful links and contacts:**

- Kit providers - and free shortage or replacement spare parts: [www.radio-kits.co.uk](http://www.radio-kits.co.uk)
- Assembly manual - download from [www.radio-kits.co.uk](http://www.radio-kits.co.uk)
- Steve G6ALU - designer and publisher of kit - email [g6alu@tiscali.co.uk](mailto:g6alu@tiscali.co.uk)
- Maplin electronics - Norwich shops at Sweetbriar retail park and opposite the castle or [www.maplin.co.uk](http://www.maplin.co.uk)
- Rapid - big range of components with online ordering - order by 8pm in evening for next day delivery (free over £30 +vat) [www.rapidonline.co.uk](http://www.rapidonline.co.uk)

## **NARC MKARS80 kit building contacts**

David G7URP email [radio@dcpmicro.com](mailto:radio@dcpmicro.com)

If you are an experienced kit builder and willing to help others, please let David add your email or phone number on this list!

Issue 1.0 G7URP February 10th 2009