

RIB Programmer

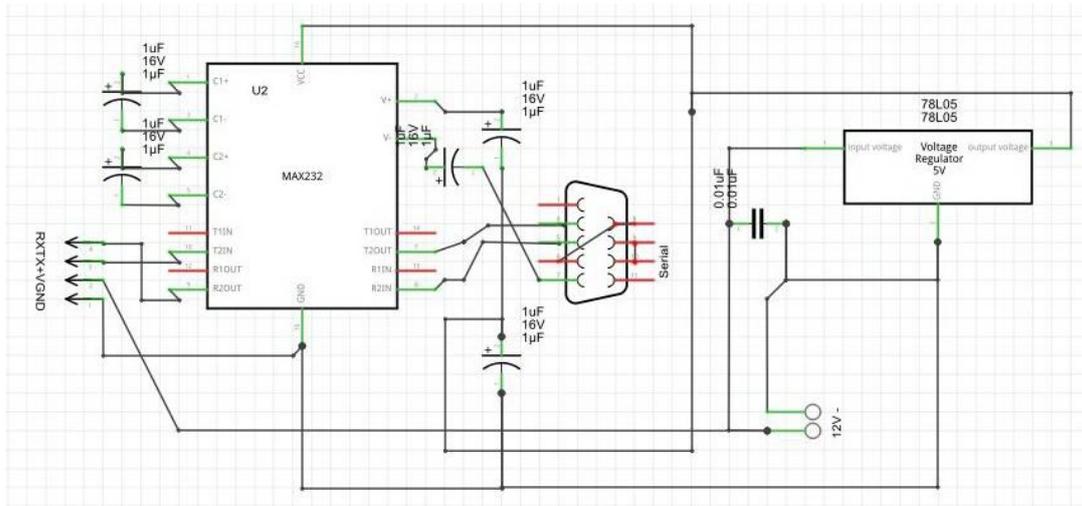
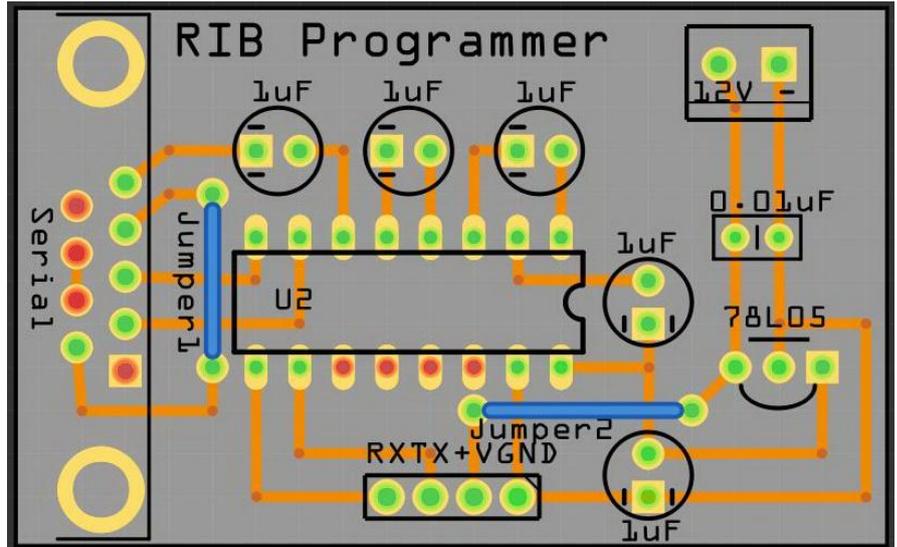
By Kevin Mc Donald ZS6KMD

This month we have a look at a RIB Box or Radio Interface Box for programming your handy or mobile radio. The RIB Programmer designed here provides an output for RX, TX, GND and an input for supply voltage to be powered by the radio if provided, alternatively it can be powered with a 9-12V supply directly to the board.

The interface makes use of a MAX232 Serial chip in a standard RS232 configuration and has been a tried and trusted friend for programming radios from many brand names.

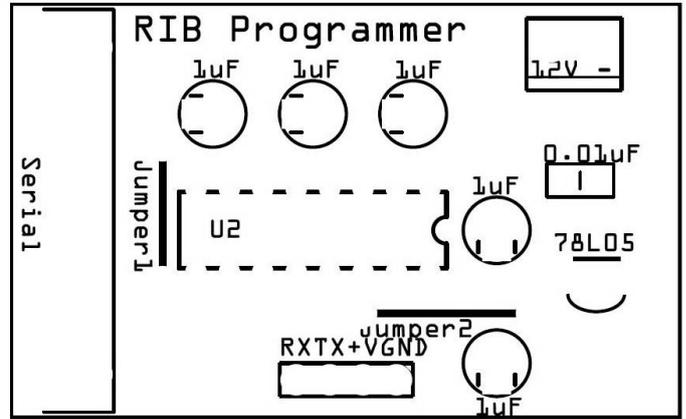
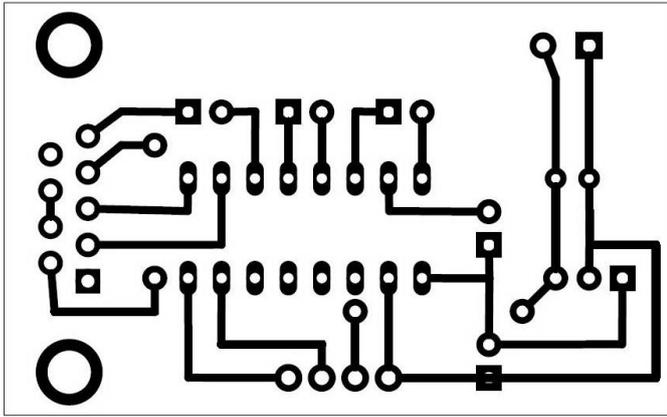
Component count is minimal and construction simple. It is important to remember the two jumper wires which should be inserted first.

The schematic should be easy to read and if you don't have PCB capabilities, making one on Vero Board is quite simple.



Layout

I have provided a PCB and Silkscreen layout for the RIB Programmer which has been uploaded to my website (link at the end of the document). The image below shows the board layout and is not to scale.



Components

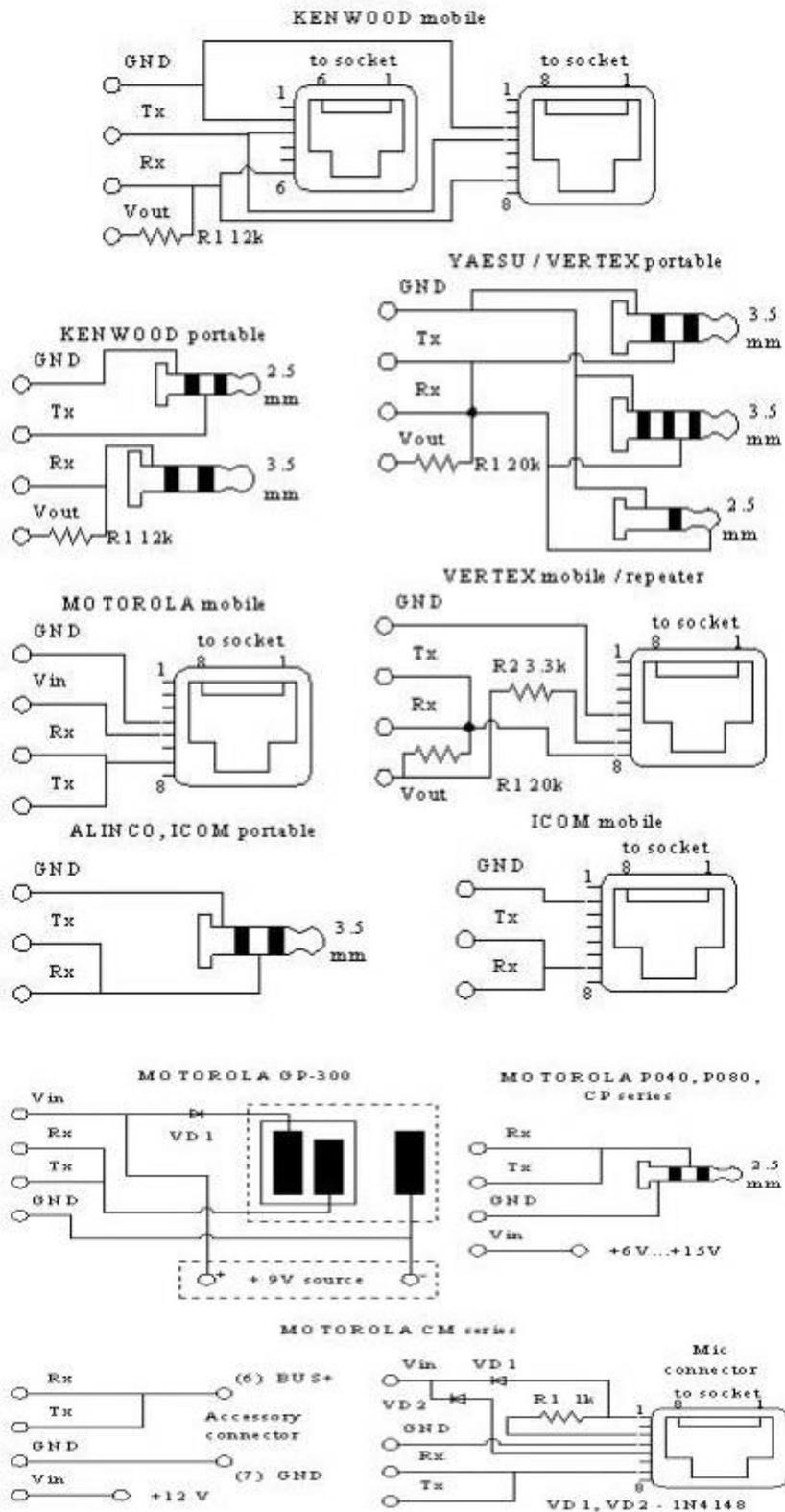
5 X 1uF 16V Electrolytic capacitors, 1 X 0.01uF Ceramic capacitor, 1 X 16 pin IC holder, 1 X MAX232 chip, 1 X 78L05 Voltage Regulator, 1 X 9 pin D Serial female chassis mount socket, 1 X four pin inline socket, 1 X 2 Pin Header and 1 X RIB Programmer PCB.

Construction

Construction follows the normal pattern of small components first, starting with the two jumper wires and ending with the 9 pin D socket. At this stage check your solder work to ensure that there are no solder bridges and you should be "A Okay".

Interfacing the RIB Programmer to your radio

A series of plugs and sockets can be made up allowing you to connect multiple radios to the RIB Programmer. The plug configurations for the most common radio are listed below.



That does it for this month, next month we will bring you some more interesting toys and gadgets to build for your Radio Shack. Have fun building and remember to send pictures of your projects or any ideas to projects@zs6kmd.za.net and we will include them in future articles.

PCB Files: <http://www.zs6kmd.za.net/RIBProgrammer.rar>

Happy Building