

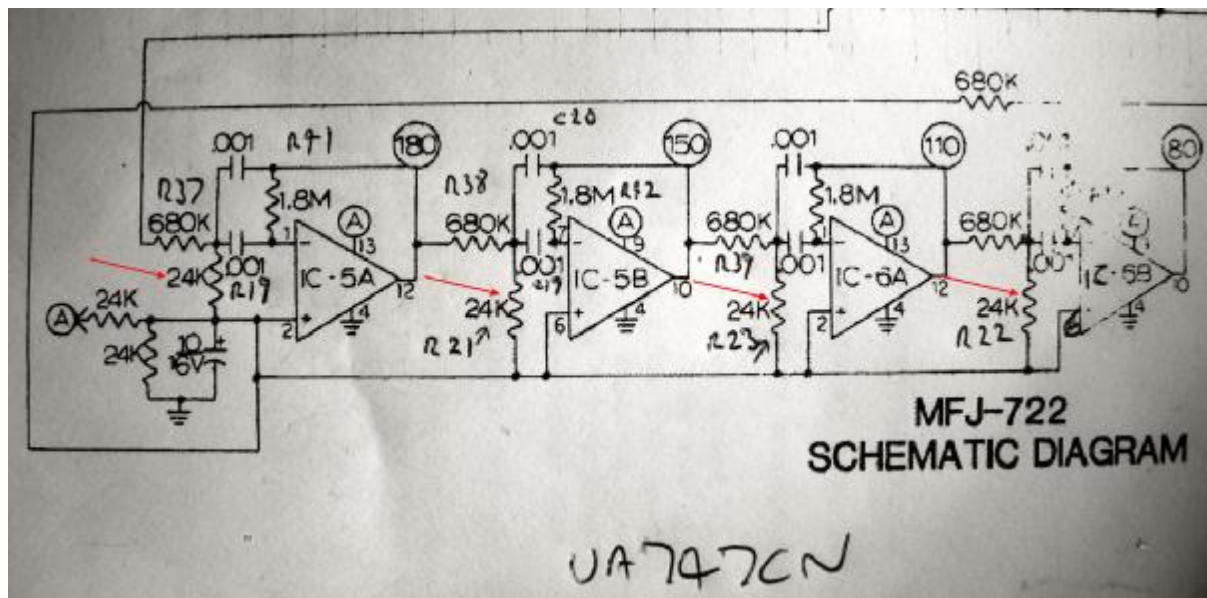
Changing the MFJ 722 CW filter centre frequency

From now the MFJ 722 has its CW filters set for 750Hz if your radio can have its beat note adjusted to match and you are happy at this tone then you need do nothing!

However, if like me you prefer a lower tone for CW work and more importantly your radio has a limited beat note adjustment then this document may help you!

I use a FRG 100 and it can be set at 400, 500, 600 and 700 Hz CW beat note.
I like to work at 600 Hz, I find my ears tune better and there is less noise.

I consulted my good radio friend Roelof of 'pa0rdt Mini Whip fame' J
It is from his hard work and guidance that I offer this document to you.



Firstly we need to identify the part of the circuit that needs changing, fortunately only four resistors need to be changed. R19, 21, 23 and 22. You can find a circuit diagram in the manual or download it on line.

The chip type is a dual amp UA747CN the pin outs is correct. Each resistor is 24K in value and is marked with a red arrow above.

From his experiments Roelof found that we need to make this resistor 42K to get a center frequency of 605 Hz which is probably close enough for most of us.

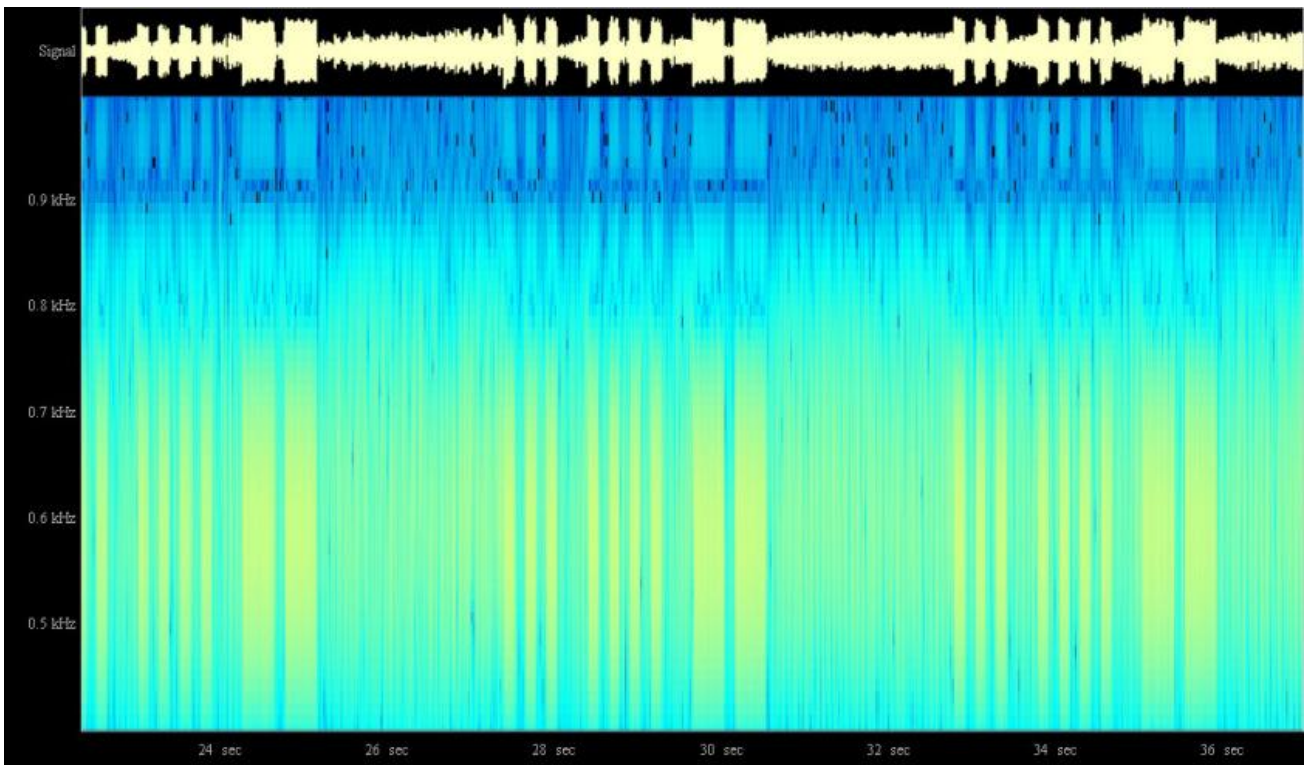
Typically I did not have this value in stock so had to resort to attaching a 10K and 7K5 in series with the original 24K resistor!

Here is a picture of the inside of the MFJ 722 before modification. The chips we are working with are marked U5 and U6 on the board!



The picture above shows the modification having been done

After this I tuned to my local NDB SHM on 332 and took this spectrogram of the tone.



This shows the centre frequency is now very close to 600 Hz, I noticed a very pleasant ring to the CW tone now!

I hope this has been of help.

Mikesndbs November 2005