

# G3EJS 2-Tuner-S

I was very pleased with the way the very small one I made for portable worked performed, I decided to make another one for the shack (hence the -S suffix)

I wanted to make it slightly larger, to make it easier to use, but didn't want the front to be bigger than the front of the FT-817.

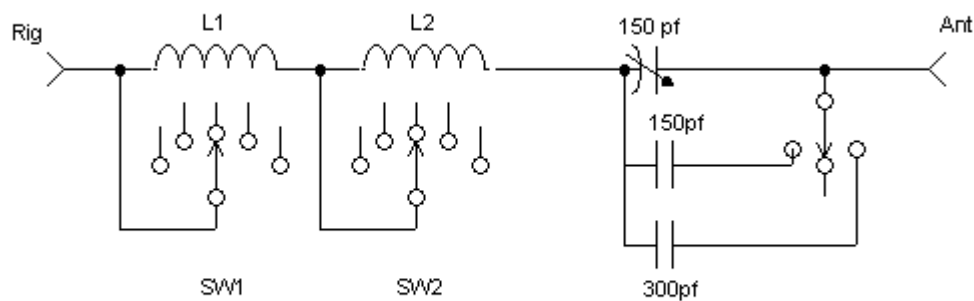
I did away with the switch that switched between an L network and series tuned, and permanently configured it as series tuned.

I added a switch to give me a straight through position, and to switch a balun in so that a wire antenna could be connected directly to the tuner. As I had the space, I used a 140pf capacitor instead of the 90pf, and made the switched capacitors 150pf and 300pf. I also extended the coils to 60t with an additional tap at 46t.

I used a 5 ¼" X 3" X 1 ½" folded aluminium box available from Maplin ( part LF08 ).

I mounted everything in the "lid", you have to allow enough room round the edges for the lips of the "base" to fit on, but the end result is neat.

L1 & L2 60t each tapped at 46t, 32t, 24t, 16t, 12t, 8t, 4t, 2t, and 1t from switch common ends.

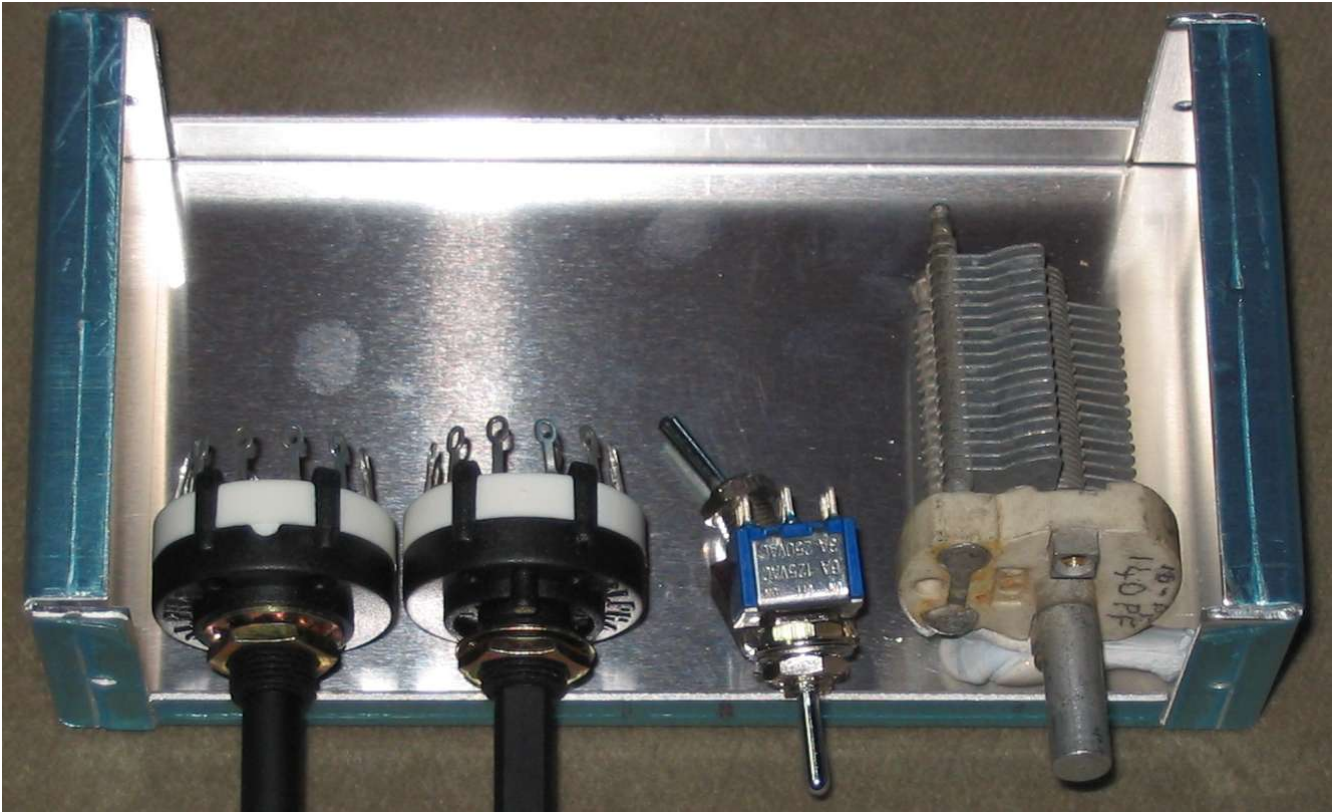


SW1 & SW2 both 1P-12W 11W used

LH open, ie full coil in circuit, RH to end of coil ie bypassed.

Other poles to taps as detailed above.

I added the balun and connection for a wire antenna, and a bypass switch.

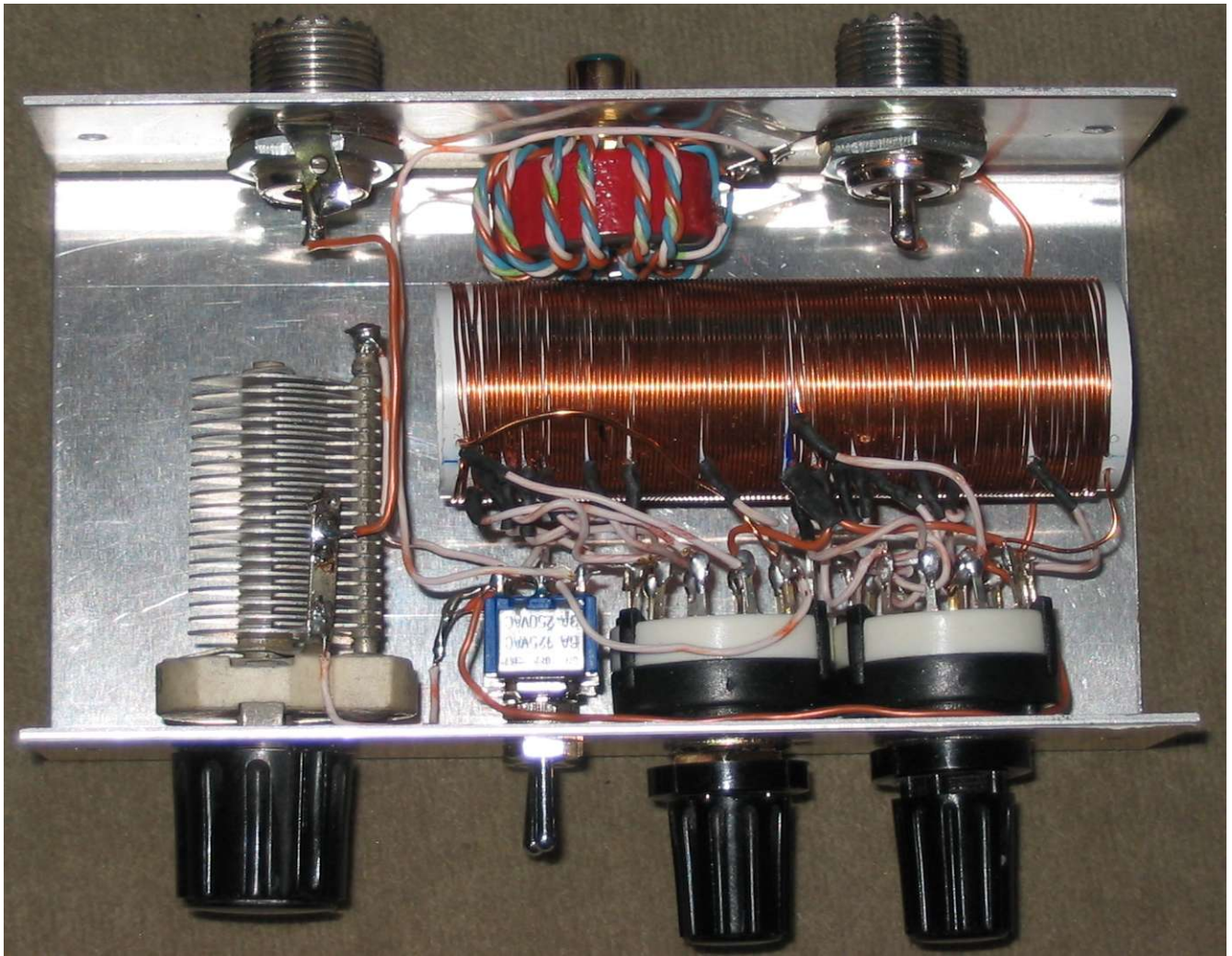


The parts laid out in the base, secured with Prestick while measurements were made.



The initial drilling. Between the two large holes on the back for the SO329s I added a phono socket for a wire antenna connection.

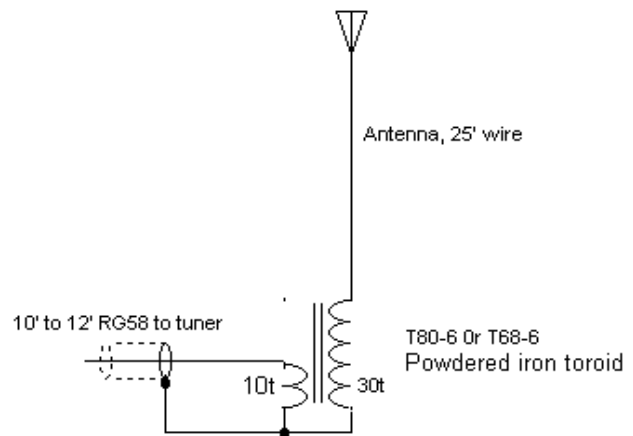




The completed tuner.

Tunes a 25' wire from 160m to 6m

Garage Wire				
	L1	L2	C+	C
160m	3	3	C+150	3.5
80m	3	3	C	3.5
40m	4	4	C	1
30m	5	5	C	1
20m	6	6	C	0
17m	7	7	C	0.5
15m	8	8	C	2.3
12m	9	9	C	2
10m	8	8	C	1
6m	9	9	C+300	5



These were the settings uses with a piece of wire going between the window and frame, with the other end having a brick on it to hold it on the garage roof.

This has turned out to be my favourite wire antenna.



Size compared to the 817.