

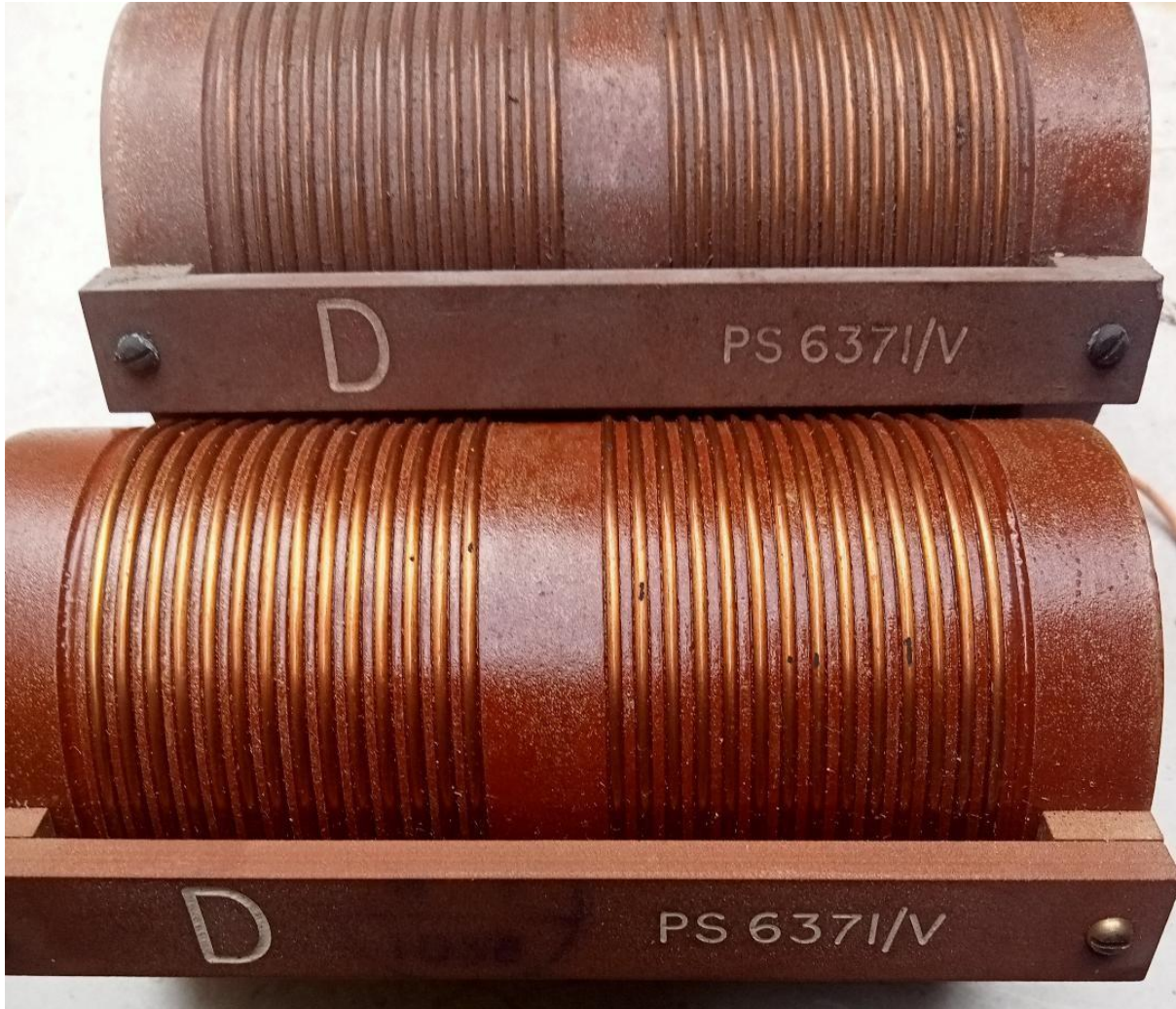
V1.0 Uncontrolled G0SFJ

Lab report: Marconi SWB transmitter coils

Andy G0SFJ

Just the sort of thing to go to a rally for!

I bought this set of coils at the J28 rally last Sunday for a fiver:



Two labels on the cardboard box!



and so I have been checking it out.

There's one from the same range on ebay:

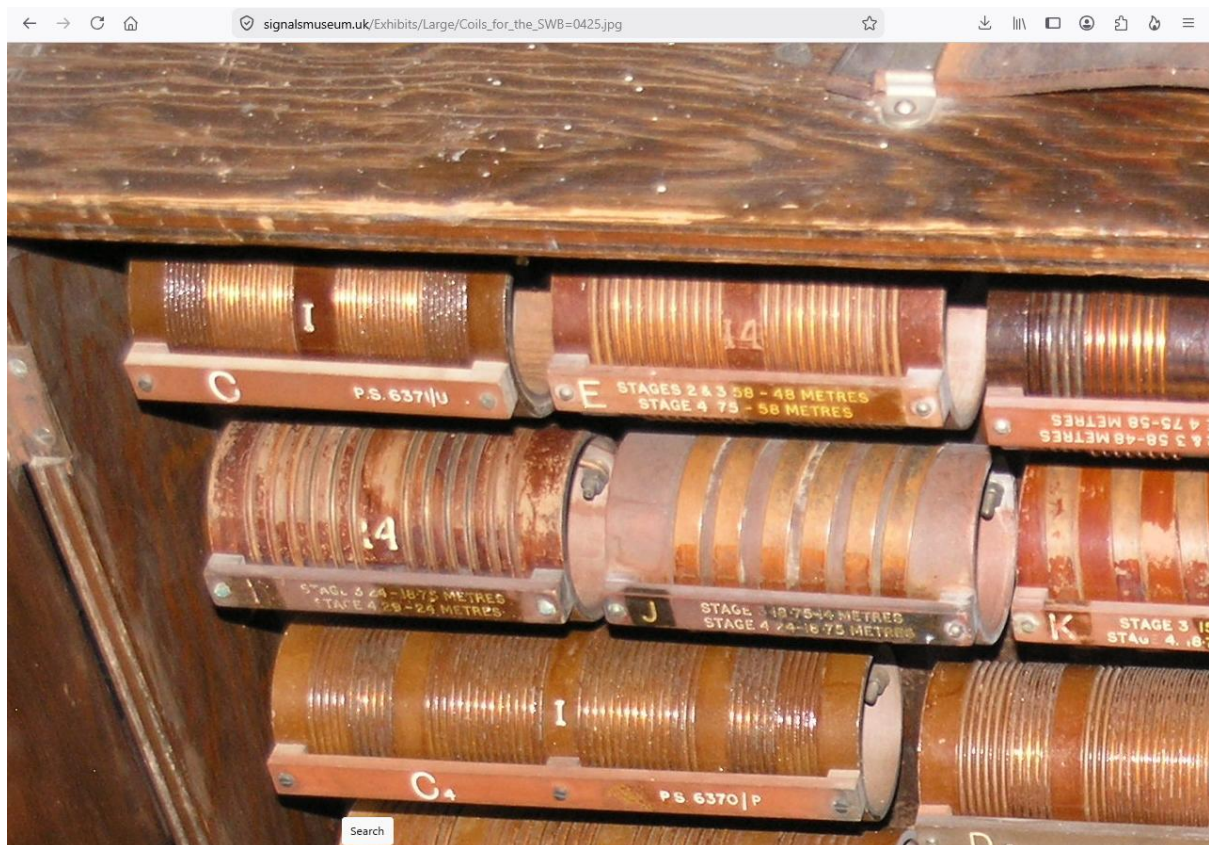
<https://www.ebay.co.uk/itm/326253469913>

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However the main source is here:

https://signalismuseum.uk/ExhibitsOld/Coils_for_the_SWB=0425.html



and you can see that it's from a Marconi transmitter type SWB-8. Evidently, it's a 1940s-1950s point-to-point HF transmitter.

The reference 10/8761 is Air Ministry, so these coils were prepared for the RAF.

Apparently, one has been renovated:

<https://signalismuseum.uk/SWB8E.html>

(copyright respected)

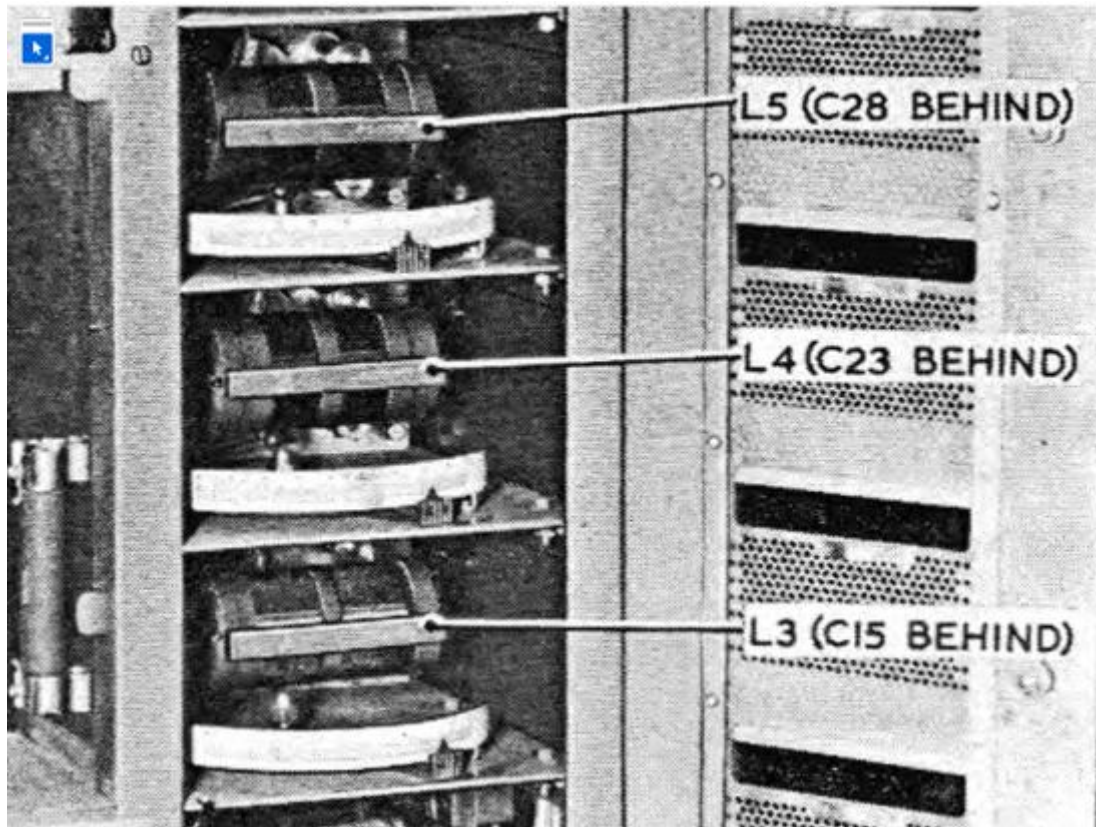
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and extracts from the manual at:

<https://www.blunham.com/Radar/Radios.html>

(copyright respected, I have made a donations)

show the location in the right hand cabinet:



And the range for this coil D:



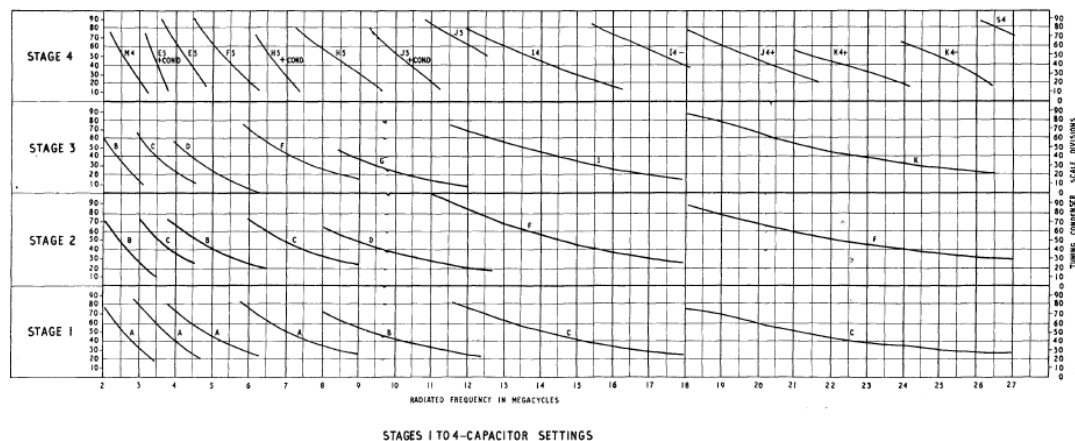
AP 2877U, Vol. 1, Part 1, Sect. 1, Chap. 3 (A.L. 8)

ACTUAL CRYSTAL FREQUENCY IN Kc/s
(CRYSTAL FREQUENCY = OUTPUT FREQUENCY)

RADIATION		FREQ.MULTIPLICATION OSC. TO 4th. STAGE				COIL REQUIRED AND TUNING RANGE OF COILS (METRES) IN EACH STAGE										STAGE 4 PADDING CAPACITOR
FREQ. IN Kc/s	WAVELENGTH IN METRES	O/ALL M	STAGE MULTIPLICATION				STAGE 1		STAGE 2		STAGE 3		STAGE 4			
			1	2	3	4	COIL	RANGE	COIL	RANGE	COIL	RANGE	COIL	RANGE		
2000 3000	150 - 100	2	1	2	1	1	A	300 - 200	B	150 - 100	B	150 - 100	M 4	150 - 100	OUT	
3000 - 4500	100 - 66.66	3	1	3	1	1	A	300 - 200	C	100 - 66.6	C	100 - 66.6	E 3 E 5	100 - 85 85 - 66.6	IN OUT	
4500 - 6000	66.66 - 50	4	1	2	2	1	A	300 - 200	B	150 - 100	D	66.6 - 50	F 5	66.6 - 50	OUT	
6000 - 9000	50 - 33.33	6	1	3	2	1	A	300 - 200	C	100 - 66.6	F	50 - 33.3	H 5 H 5	50 - 42 42 - 33.3	IN OUT	
9000 - 12000	33.33 - 25	8	2	2	2	1	B	150 - 100	D	75 - 50	G	33.3 - 25	H 5 J 5 J 5	33.3 - 31.5 31.5 - 27 27 - 25	OUT IN OUT	
12000 - 18000	25 - 16.66	12	3	2	2	1	C	100 - 66.6	F	50 - 33.3	I	25 - 16.6	J 4 J 4 -	25 - 19 19 - 16.6	OUT OUT	
18000 - 27000	16.66 - 11.11	18	3	2	3	1	C	100 - 66.6	F	50 - 33.3	K	16.6 - 11.11	J 4 + K 4 + K 4 - S 4	16.6 - 14 14 - 12.5 12.5 - 11.45 11.45 - 11.11	OUT OUT OUT OUT	

STAGES 1 TO 4-COIL CHART

Looking at the sequence: C PC637/U : in the top left of the box, this is next in the series of Stage 2 and 3 coils.



AIR DIAGRAM
6254A/MIN.
ISSUE 1

Transmitter SWB8X—Calibration charts for terminating unit and stages 1 to 4

Fig. 1

(A.L. 8, Mar. 57)

Either its's for 8-13 MHz (if stage 2) or for 4-6.5 MHz, depending on the capacitance used.

So it should be very easy to set up the coil for the 10 MHz band, if not 7MHz; it will take high voltages so possibly an end-fed half wave??

A piece of HF (shortwave) history. Also

73 de Andy GOSFJ

V 1.0 18 June 2026.