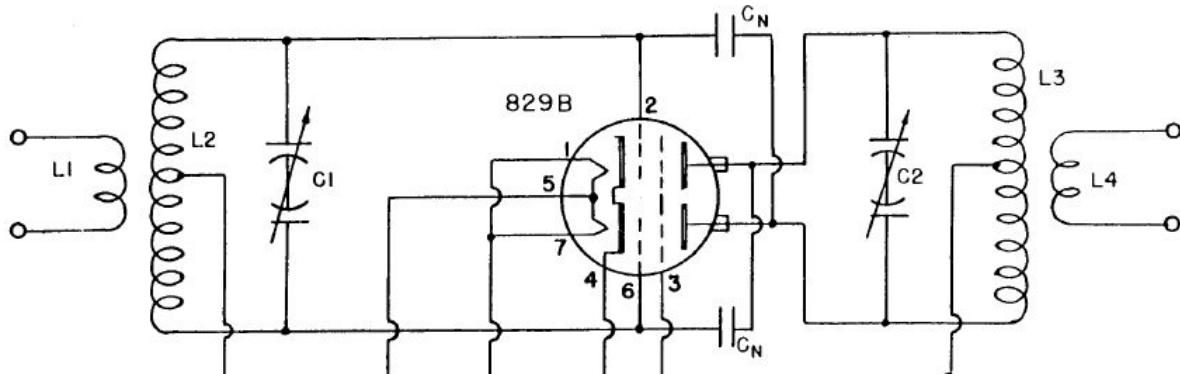


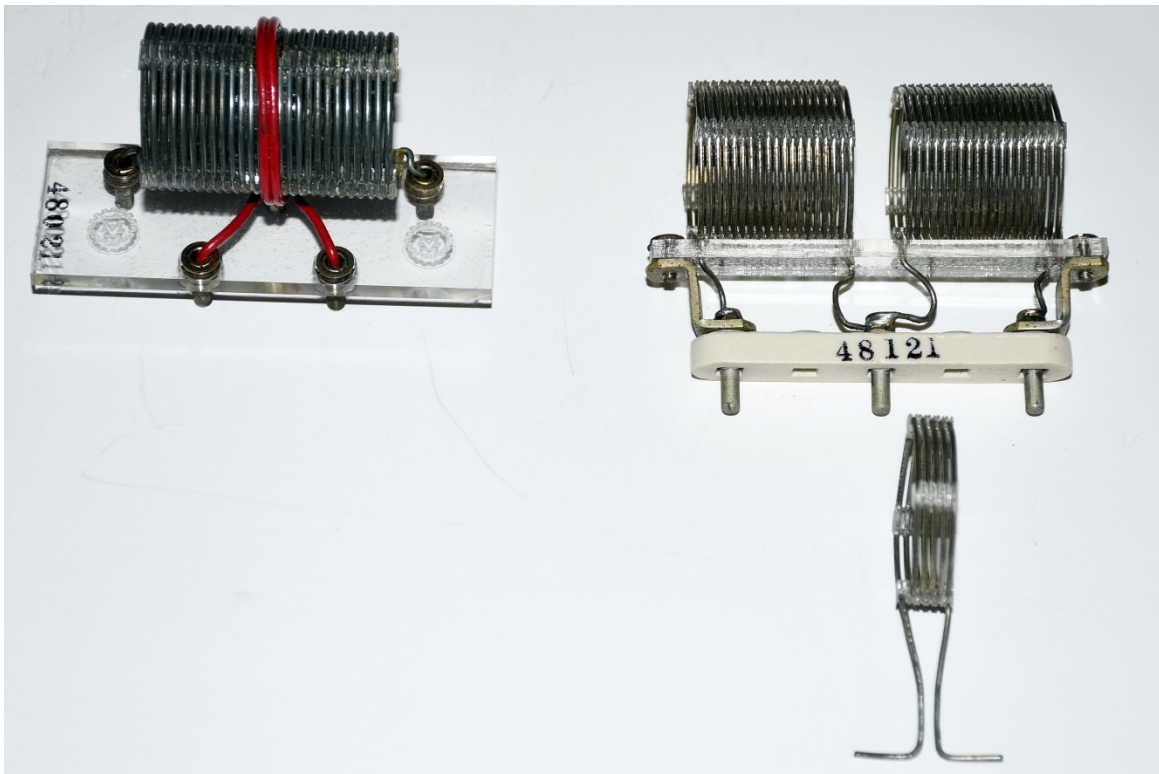
Millen 48000 Series Coils
By
George Maier - W1LSB

The coil sets used in the 90810 VHF transmitter and 90811 amplifier can be considerably harder to find than the equipment itself. What follows is documentation of these coils both in photos and by physical description.

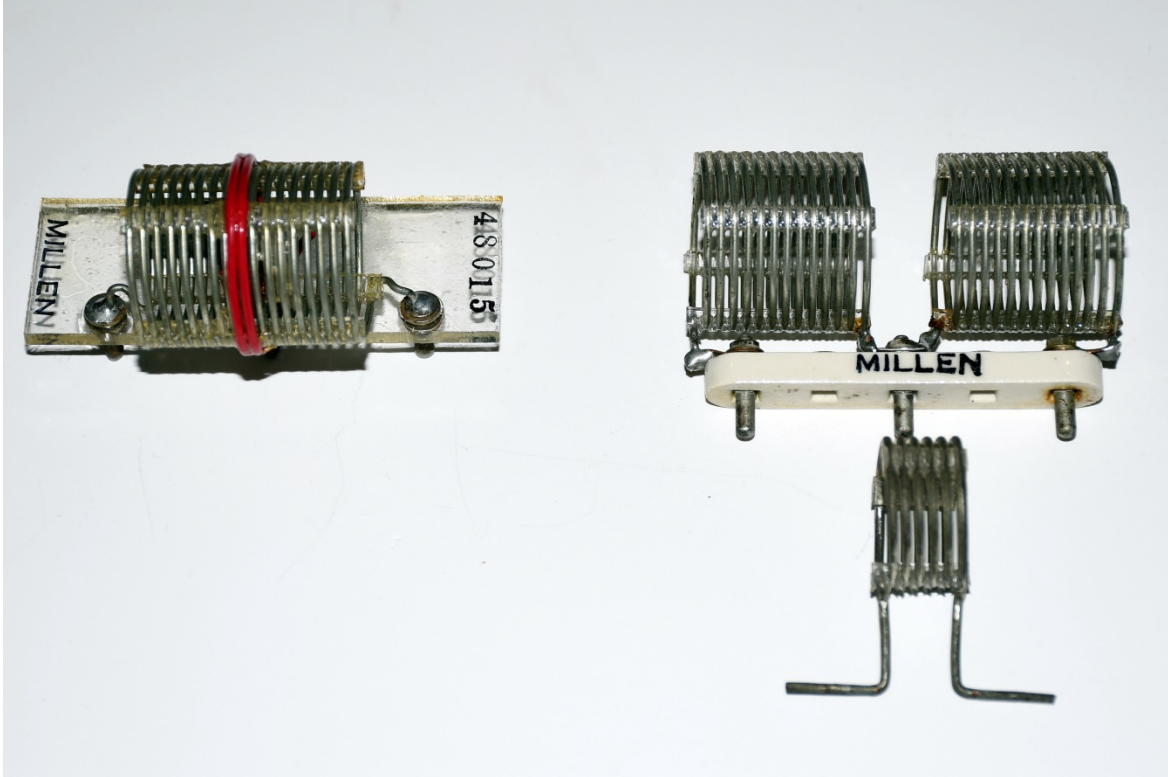


Schematic of the grid and plate coils found in the 90811 amplifier

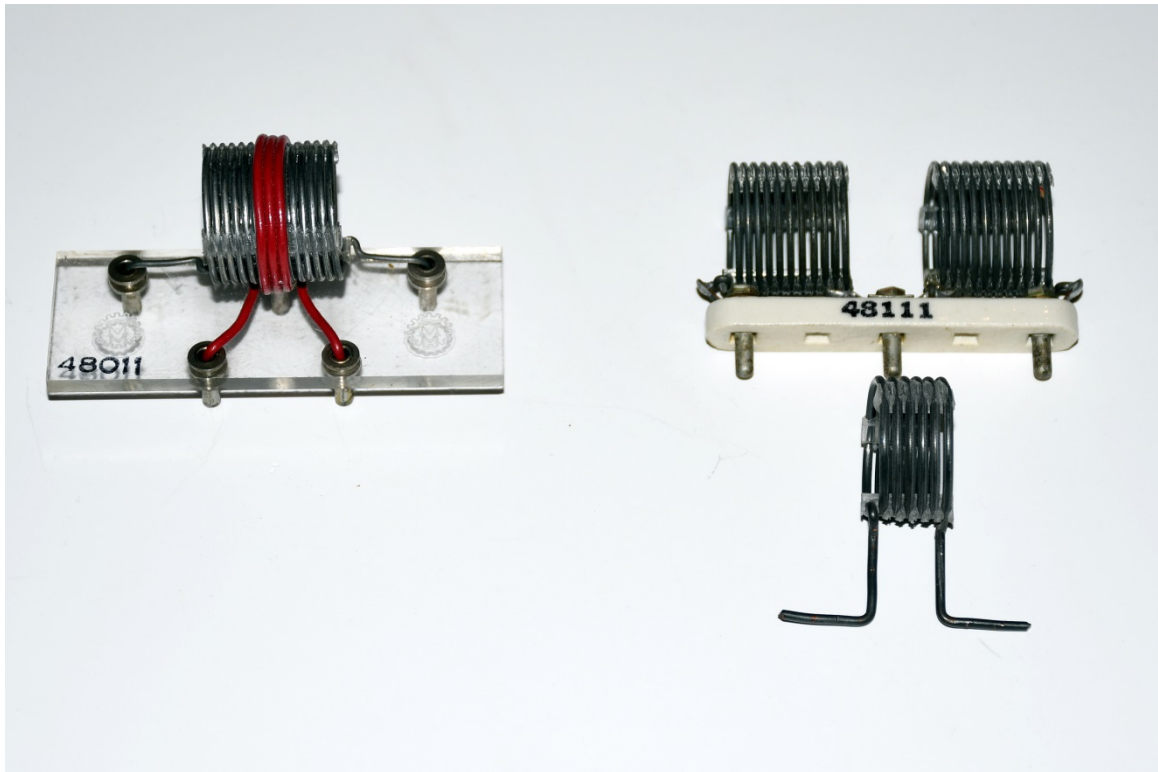
NOTE: 90810 transmitter is essentially the same



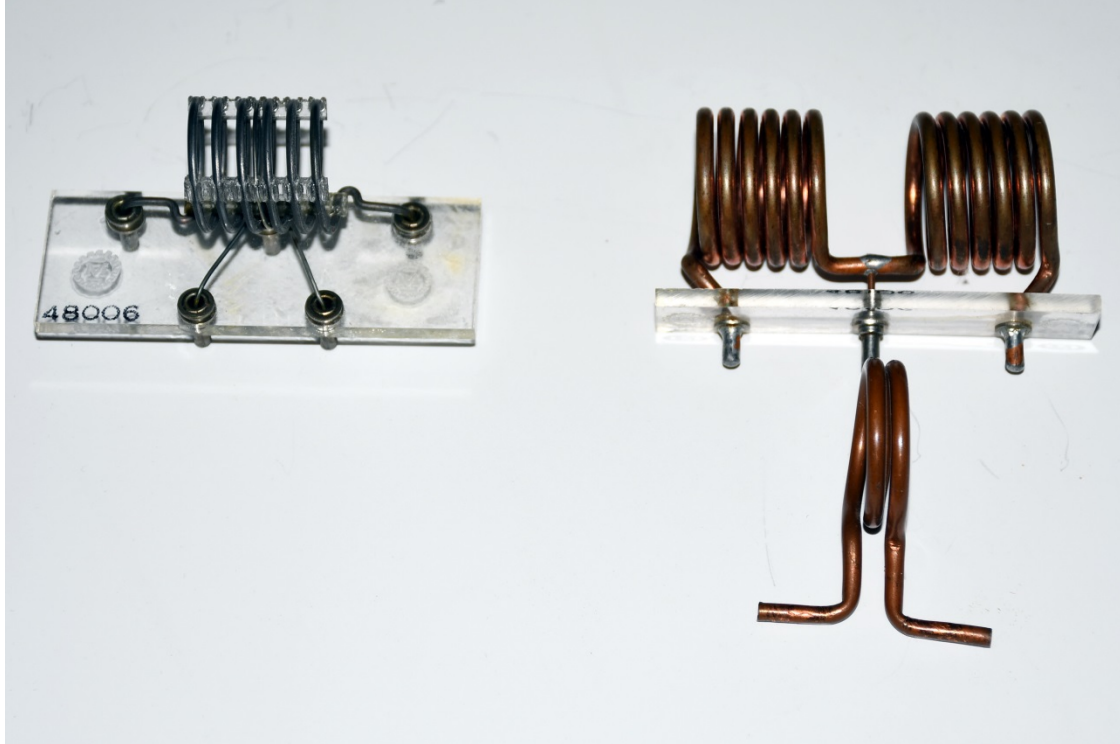
20M Grid Coil 48021 and Plate Coils 48121



15M Grid Coil 48015 and Plate Coils 48115



10M Grid Coil 48011 and Plate Coils 48111



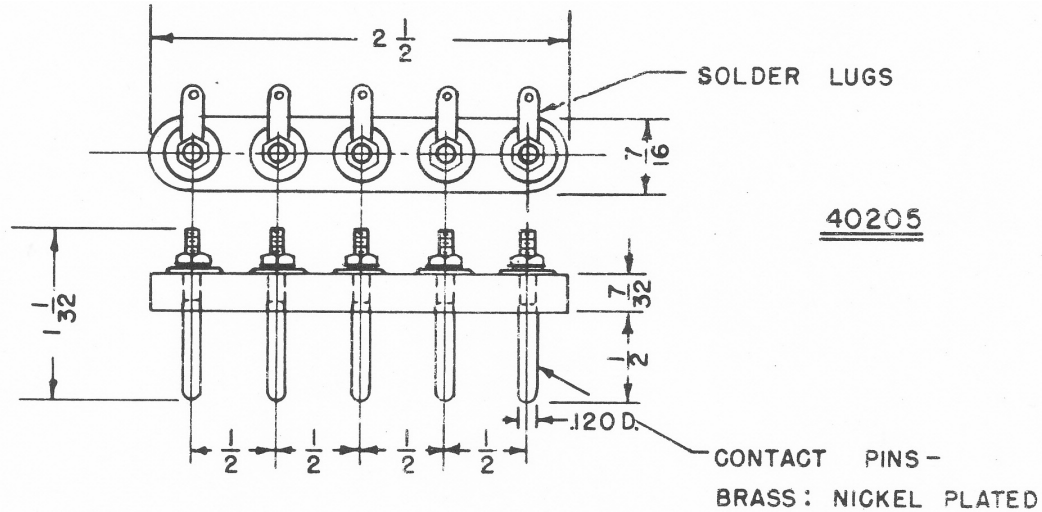
6M Grid Coil 48006 and Plate Coils 48106



2M Grid Coil 48002 and Plate Coils 48102

One unanswered question is who supplied the raw coil stock for Millen. I suspect that it was B&W as Air Dux did not enter the market until after these were offered for sale.

The Plexiglass bases used for the grid coils measure 3" x 1 1/8" and are 1/8" thick. The 6M plate coil base measures 3" x 5/8", and is also 1/8" thick. All other plate coils are assembled on Millen 40205 steatite plugs; see drawing below. Links are as described in table 1.



Band	Grid Coil	Grid Coil Properties	Plate Coil	Plate Coil Properties
20M	48021	LINK: 2 T # 22 insulated COIL: 24 T # 16 tinned 16 TPI 1" dia, w/ ctr tap	48121	LINK: 5 T #18 tinned, 1" dia 18 TPI COIL: 38 T # 18 tinned 18 TPI 1" dia, ctr tap gap of 5/16"
15M	48015	LINK: 2 T # 22 insulated COIL: 17 T # 16 tinned 12 TPI 1" dia, w/ ctr tap	48115	LINK: 6 T #14 tinned, 3/4" dia 12 TPI COIL: 26 T # 16 tinned 1" dia 12 TPI 1" dia, ctr tap gap of 1/2"
10M	48011	LINK: 4 T # 22 insulated COIL: 14 T # 16 tinned 16 TPI 3/4" dia, w/ ctr tap	48111	LINK: 6 T # 14 tinned, 3/4" dia 12 TPI COIL: 22 T #16 tinned 3/4" dia 16 TPI 1" dia, ctr tap gap of 1/2"
6M	48006	LINK: 1 T # 20 insulated COIL: 6 T # 14 tinned 6 TPI 3/4" dia, w/ ctr tap	48106	LINK: 2 T 1/8" copper tube 7 TPI COIL: 12T 1/8" copper tube 7TPI 1" dia, ctr tap gap of 5/8"
2M	48002	LINK: 1 T # 16 tinned COIL: 2 T - 1/4" copper strap w/ ctr tap	48102	LINK: 2 T 1/8" copper tube 7 TPI COIL: 2T 1/8" copper tube 7 TPI 1" dia, ctr tap gap of 3/4"

Table 1 - Coil Data for 90810 Transmitter and 90811 Amplifier

NOTES: a) 90810 Transmitter does not operate on 15 or 20M

b) 48021 coil corrected to 26 turns (was 24)

W1LSB Feb 24, 2023

Rev 1 - Apr 30, 2023