Classical ATU

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Credit Line:
http://www.qrz.ru/schemes/contribute/antenns/rz3gi-tuner/

The Classical Antenna Tuner (with two capacitors – one for matching with transmitter another one do matching with load and inductors that value depends on frequency between the capacitors) is known by hams and served at the ham shack for decades. Schematic of the Classical Antenna Tuner is shown on **Figure 1**. This tuner can do match from 80 to 10- meter band.

Note from I.G.: There are lots commercial design (MFJ may be a leader in that) of such Tuner that can stand power from several tens watts to several kilo watts. At almost any hamfest it is possible find lots home brew designs of the tuner. It is only confirms high working function of the ATU.

Parts:
Inductor L1 has 35 turns of copper wire in diameter 1.2- 1.5- mm (17- 14 AWG). The inductor is wound on form in diameter of 40- mm gap between turns is 2- mm. Taps made (from cold end) from 12, 15, 18, 21, 24, 27, 29, 31, 33 and 35 turns. L2 has 3 turns made by the same wire on a form in 25 mm diameter and has 20- mm length.

Capacitors C1 and C2 were used from an old military VHF radio. Gap between plates is near 1- mm. It was used capacitors with 160- pF maxima capacitance.

The tuner was used with FT-897D HF Transceiver. Matching with antenna was done with help of internal SWR meter of the transceiver.

73! RZ3GI

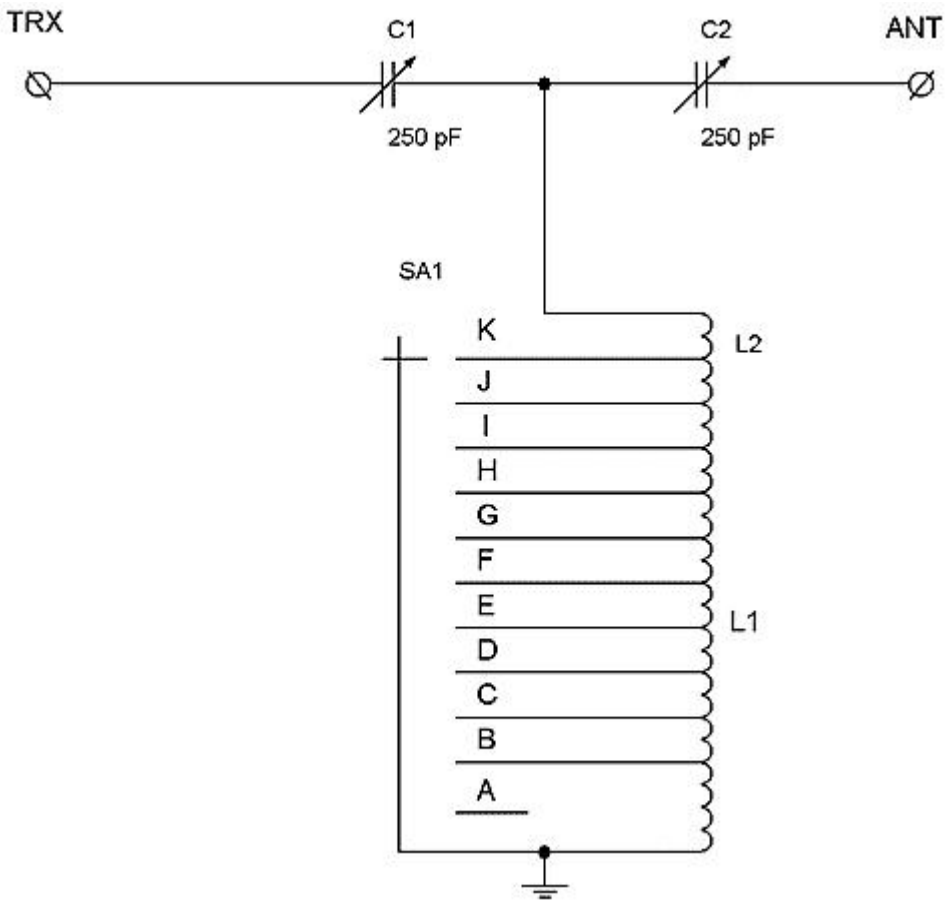
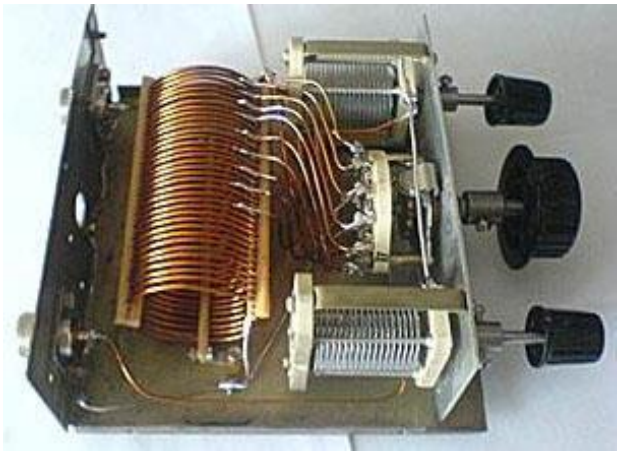
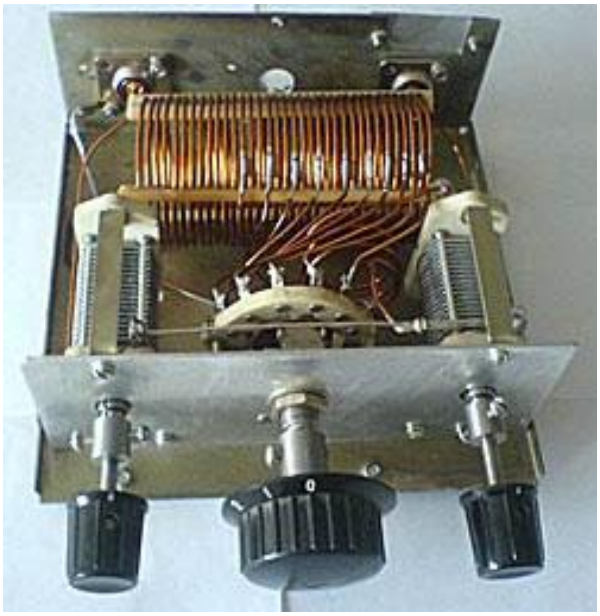


Figure 1 Classical Antenna Tuner

ATU with FT-897D



ATU: Inside View



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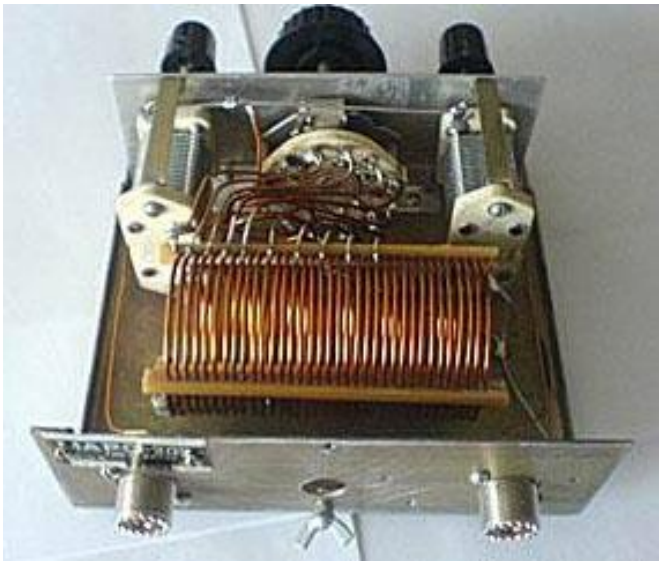

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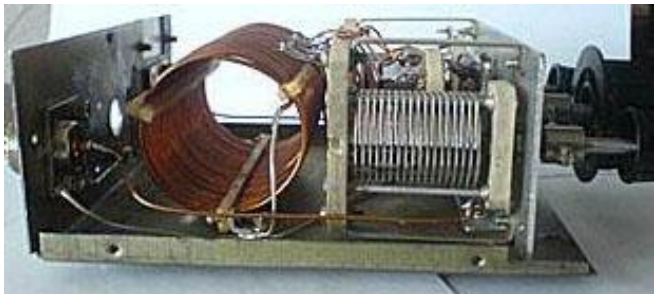

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