

# Practical Photos for P.A. on Tube GU-43B

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**Photo # 1.** The photo shows circuits for first (right) and second (left) grids. It is possible to see (under tube socket red resistor- 56- Ohms, anti- self-excitation. Value may be increased to 100- Ohm at some cases. Choke for heater circuit is wound on a ferrite ring (permeability does not matter). Wire for each heater terminal is placed on the one half of the ring.

**Photo #2.** Circuit of the second grid is shown on the photo. At "hot" end: Red capacitors – 0.01-microF- 4 pcs, Blue capacitor – 6800- pF- 1-pcs, Red resistors 56- kOhm -2-Wtts (to eliminate dynatron effect at the second grid). Thereof it is Choke (yellow one) and resistor 100- Ohm- 5-Wtts for limiting current of the second grid. Between the choke and resistor there are capacitors 1.0- microF, and some mica capacitors for shortening RF.



Photo # 1



Photo #2  
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Photo # 3

**Photo # 3.** Plate Choke is at the front. I made my Plate Choke from high- Ohmic (manganin) wire in silk insulation. The Choke was wound 2x 0.33- manganin wire. It has  $R= 18.3\text{- Ohm}$  ,  $L= 34.5\text{- microH}$ . Two capacitors 3300- pF x 3300- V are installed at "cold" end of the choke. Near the tube socket is Red capacitor 0.01-microF. Input RF is going through the capacitor.

**Photo #4.** Here is shown assembled RF- Part of the PA. Front Panel is attached to the bottom by L- parts. Bottom and Front Panel are aluminum plate in 4- mm thick. Fan here is only for the time tuning of the PA. At the ready design the fan is at rear panel. The fan is blown inside the box.

Photo #4  
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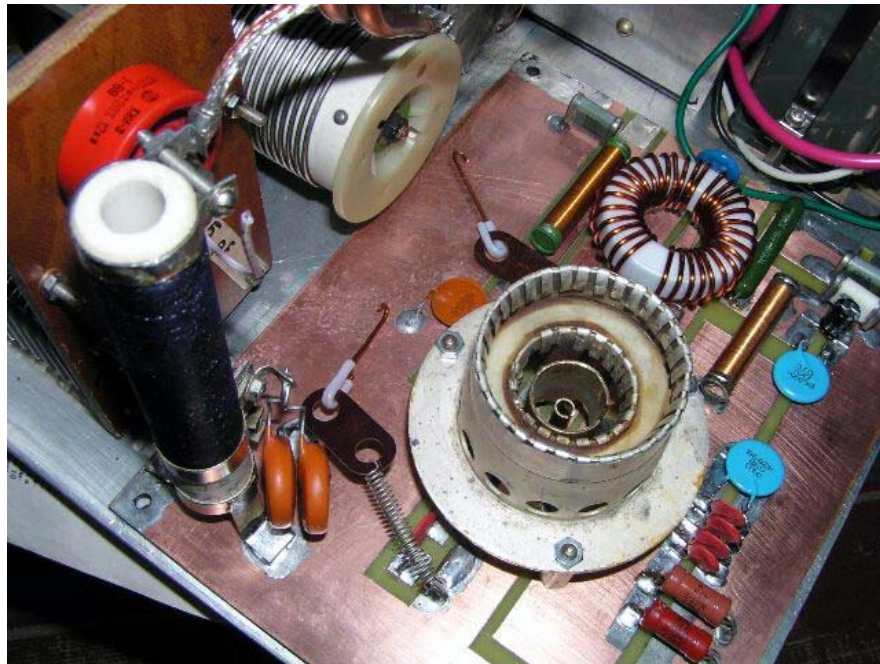


Photo # 5

**Photo # 5.** Here is shown tube socket. Grids ring are used from original socket. Cathode and heater is made by myself. I made it from phosphor bronze in 0.35- mm thick.

**Photo # 6.** Tube Inductor wound from copper wire in diameter 3.6- mm (7 AWG). It was used main electric wire (plastic insulation was removed).

One inductor has diameter 45- mm another one 32- mm. Box- it is capacitor at antenna terminal. It was used old German Capacitor 3x 495- pF. Green resistor is antistatic resistor 30- kOhm x 2-Wtts that is connected to bridge to antenna. White wire is high- voltage wire to the RF- Choke.

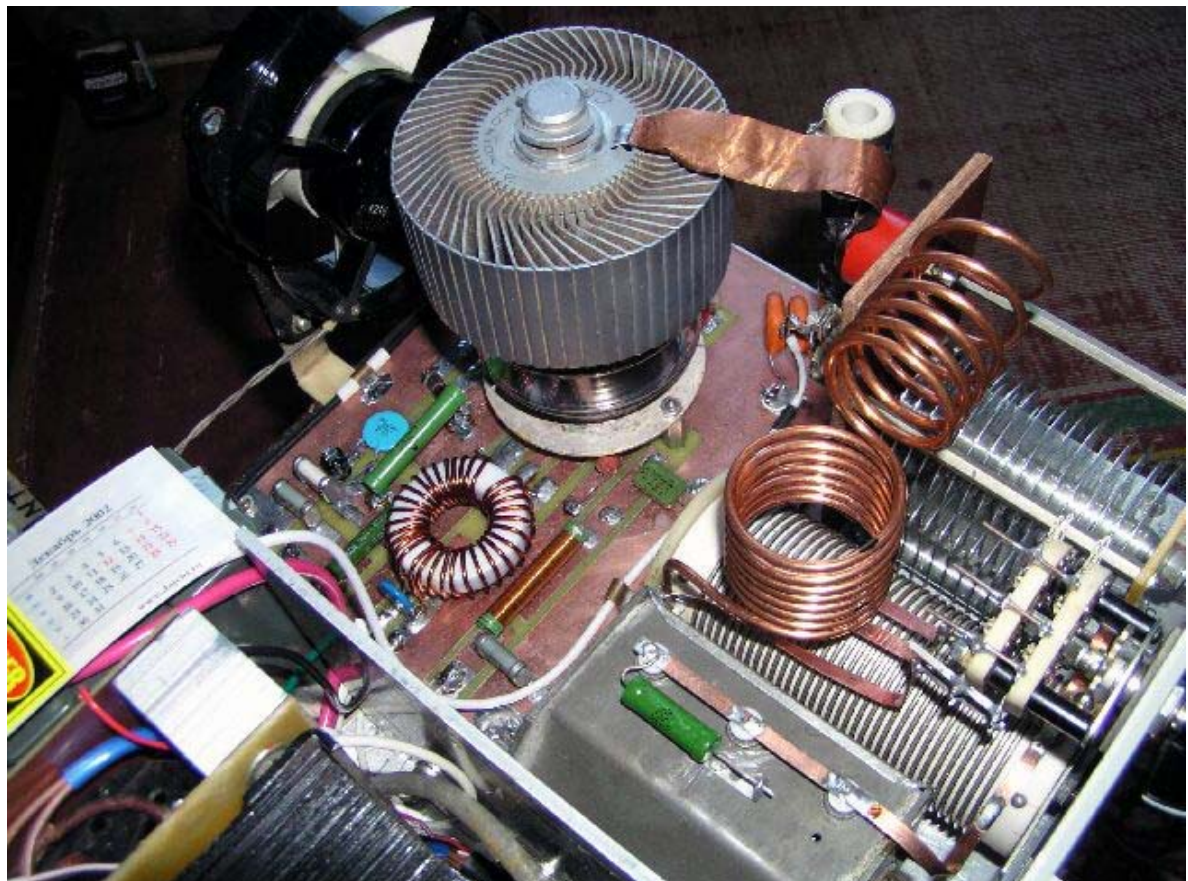


Photo # 6  
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Photo # 7

**Photo # 7.** Here is shown Electric Power Part of the PA. PCB plate with rectifiers bridges for 2500- V, 300- V, 30- V and 100- V is attached at the main transformer. At the right lower corner you can see antenna- switching PCB. Two green terminals are intended for fan.

**Photo # 8.** Take attention to the gang switch. It is insulated from the metal case. It is stay on a textolite plate. Screw that came through front panel are in Teflon insulation. Plate variable capacitor is an old military capacitor from Russian transmitter RSB. Black wire at the lower right corner is coaxial cable for input RF. At the tube place its braid is not grounded. Coaxial cable braid is grounded only at switching relay.



Photo # 8

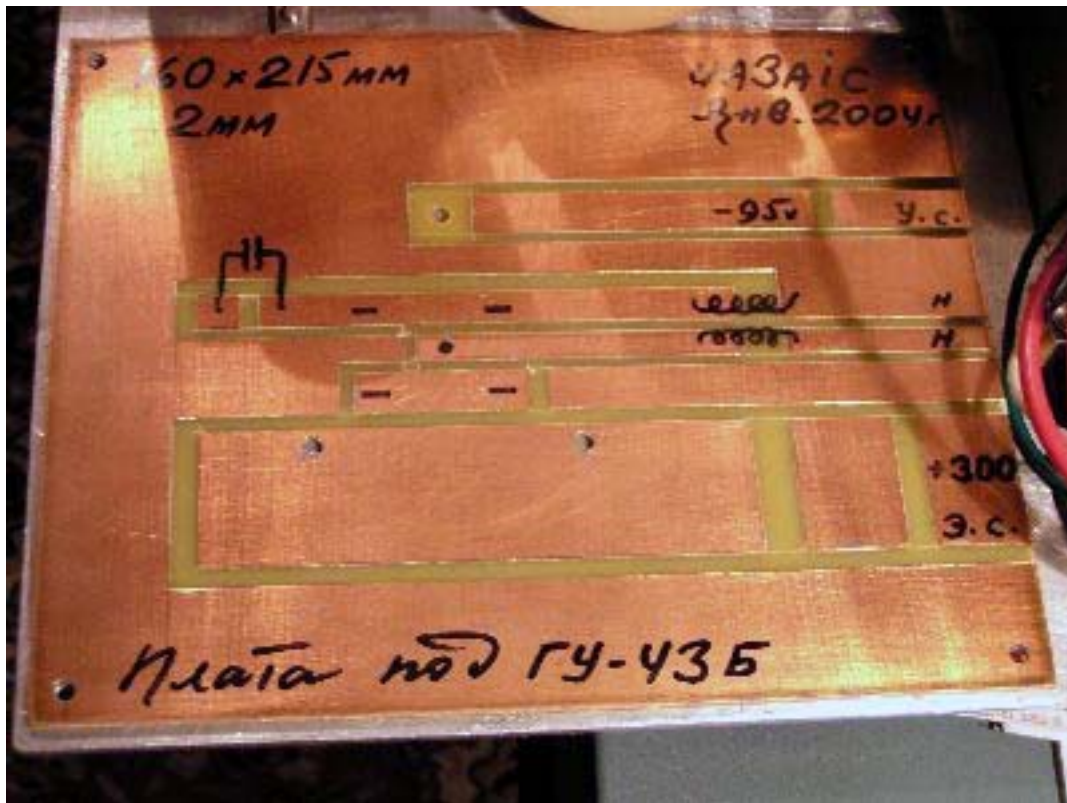


Photo # 9

**Photo # 9.** Here is PCB for PA. It is possible to use A PCB of any reasonable sizes. Dot in the center is place for heater's tube. Four Dashes are places for soldering of the cathode tube. Three dots round the dashes are for holes for holders for screen greed. The holes should be insulated from the ground.

**Photo # 10.** Heater's tube and Cathode's tube are already soldered at their places. There were soldered with help of a small Gas Burner HT- 950 (it is shown at the left upper corner).

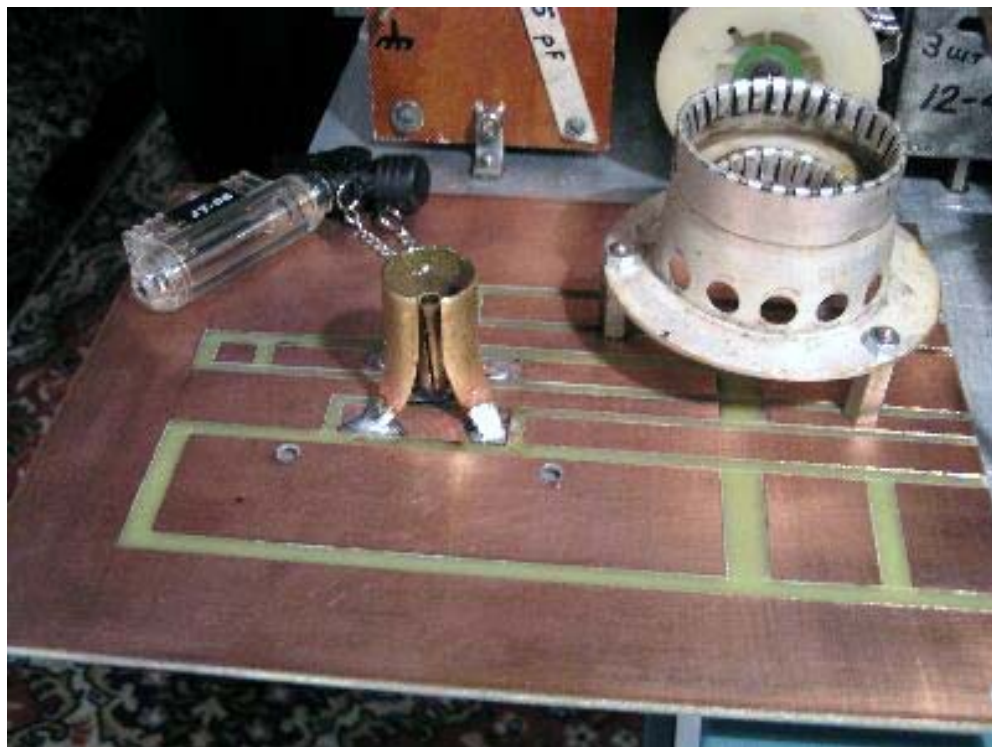


Photo # 10



Photo # 11

Photo # 11. Process is going.

Photo # 12. Process is going. Here is at right lower side is shown Interface Panel. Small RF- Socket- RF input, large RF – Socket is for RF output.

PCA Socket is intended for pedal or another external control of the PA. Near it is a main fuse. Two Green terminals are for fan.

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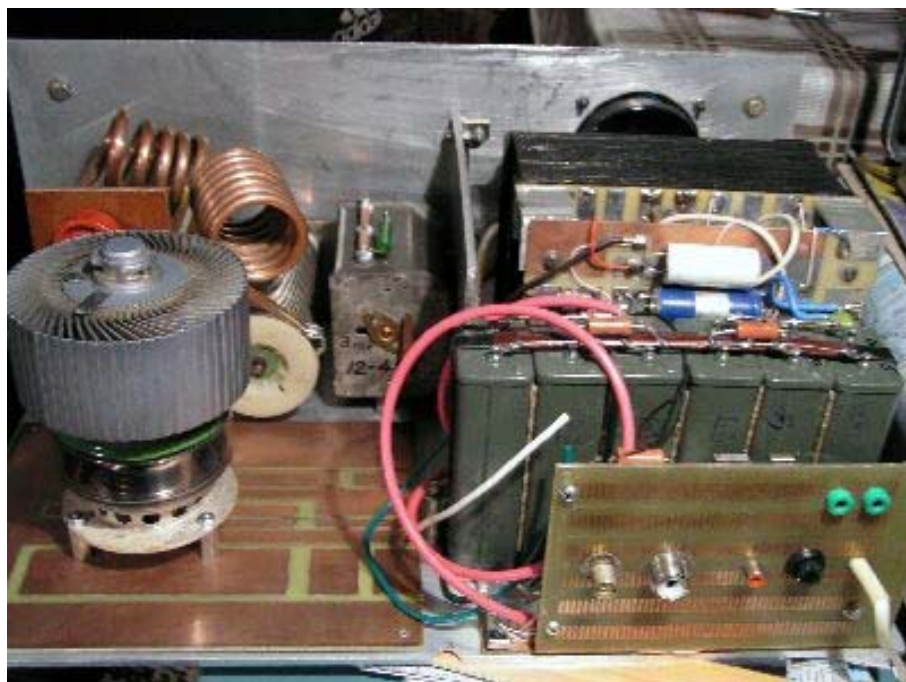


Photo # 12