ROGER BEEP

This circuit was once published in a radio magazine Funkschau Nr. 8 in 1980, the previous circuit was made by DK9RL and at last modified by IN3DEG, Siegfried Degasper, translation by DL5DBM, Anwar von Sroka.

A roger tone is of grate help when dxing spessialy when the reciving conditions are not that good. The end of transmission will be signed by a tone like **"K"** or only a dash **"T"**, dipends on switch setting.

Influenced by the schematics in Magazine Nr.21/1974, by DK5RL in TTL-Technik, IN3DEG modernised the schematic with Parts availible in ouer days. He used CMOS-IC`s to intigrate and make the whole thing easier to build

The circuit:
Two of the four norgates in a CD4001 work as a timing generator from 5 to 15 Hz and a tone generator that works from 800....3000 Hz..The decimal counter CD4017 which is lined after the timing generator counts the tackts (*Picture 1)*. Its outputs are coppeld via diodes with the tone generator to kutoff the tone with a high signal when the pause for the tone has to come.

By selekting via the switch (S), the timing generator will be stopped as soon as the "K" or "T" tone has been given, and over T2 and T3 the PTT-line will be released. In case you need higher currents than 30mA to schwitch the transmitter, you must substitute T3 bei using a darlington like a BC517 or BC522 etc.
When you push the ptt schwitch, T1´s collektor goes to high and schwitches T3 on to start transmission. With the same high signal the counter is set to zero (pin 15) for an initial start, and the timing generator will be stopped. The two diodes in the line are for decoppling when the circuit is schwitched off and only the RX/TX condition is used You can schwitch on the transmitter over the input "Tonecall" without aktivating the ptt. By changing the values of R1 you can modifiy the timing rate, with R4 the tone frequency and with R3 the grade of modulation . For the beginning you should use potentiometers and after the settings are as you prefare you can substitute them by constant resistors.
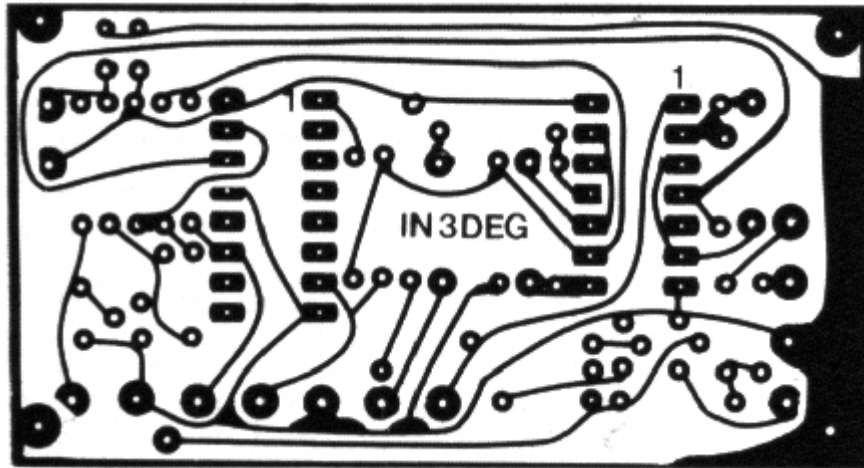
picture 1.

picture 2.

picture 3.
Original size of pcb is 68 mm X 36 mm

In the zip-download you have a new patternd pcb-layout and all the rest of the information. You can then print a layout on a transparency. To download go back to the homebrew page and selekt zip download.

I have used this circuit for quite a long time, the only thing you have to pay attention to is the supply voltage, use a stabilising IC like a 78L12 and intigrate it in the same case, the circuit dosn`t like voltages higher then 12 V DC

I already have destroyed two times the IC´s on my board, with 13,8 V.. Hi Hi...

Have a lot of fun with it !

73 de dl5dbm, Anwar von Sroka