Differences between Exciters EX21L (PN 600003, Rev C) and EX21N (P/N 600012)

Regarding: Differences between Exciters EX2L and EX21N
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The main difference between Exciters EX21L and EX21N is the size of the antenna used to radiate 125 KHz signal.

Exciter EX21L uses a 2x1meter loop antenna consisting of 7 turns; the one turn tap wire is connected to the output of power amplifier on LFA21 board, Rev E/L.

Exciter EX21N uses a 1x0.5 meter loop antenna consisting of 12 turns; the 2 turns tap wire is connected to LFA21, Rev E/N.

The tuning capacitors for the loop antenna are on the LFA21 board (C33, C34, C35) and their values are calculated to bring to the resonance the antenna at 125KHz.

For EX21L: C33=3.9nF, C34=470pF

For EX21N: C33=3.3nF, C34=220pF

Capacitor C35 compensates the variability of the components and the influence of the environment on the antenna.

To get the desired power level the duty factor of the signal injected in the final amplifier was modified; consequently capacitors C23, C24 and resistors R23, R26 have a different value than in EX21L. (C23=C24=470pF instead of 1nF, R23=R26=10Kohm instead of 36Kohm).

In order to report correctly the level of the LF voltage at the tap of the antenna, resistor R30 has been modified too.