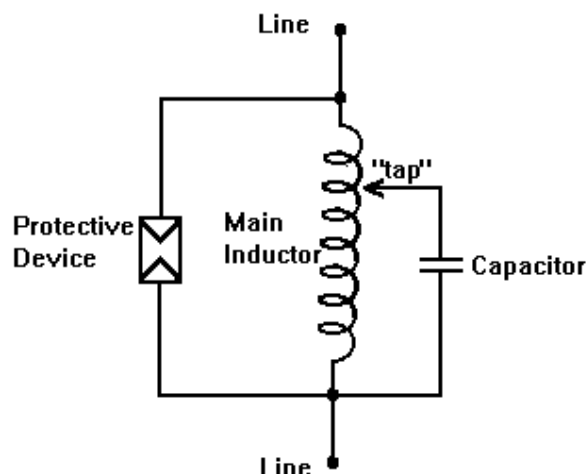




POSITION	EMISSION	APPROVAL	EDITION	CONTROL
ENTITY	SEPCA	DAT	September, 16 of 05	SEPCA
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## 1.) CIRCUIT DESCRIPTION



The trap consists of a LC parallel resonant circuit, in which the capacity of the tuning device may be varied step by step and the inductance continuously be means of a tap clamped to any part of the line trap coil winding.

The connection to the line is made on each end of the coil and not only on the parallel resonant part of the windings.

## 2.) ADJUSTMENT OF RESONANT FREQUENCY

### 2.1 ) The figures on pages 3/4 and 4/4

Show all connections required to obtain the wanted resonance frequency. The tolerance of the capacitors affect the tuning. In some cases it may necessary to choose the next higher or lower capacitance than indicated on the tuning table. In most cases the trap is relatively inaccessible after installation and it will be much easier to adjust with the trap on the ground.

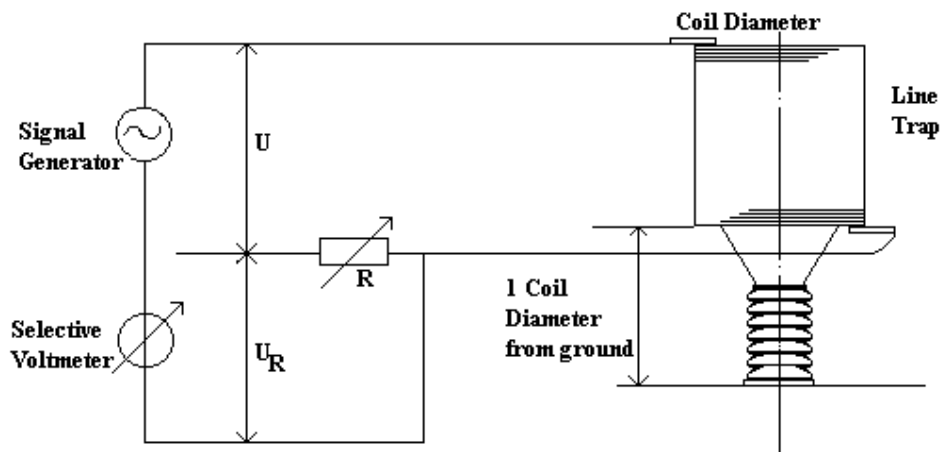
When making adjustments with the trap on the ground, the resonance frequency will be affected unless you maintain a distance of at least one coil diameter from the coil to ground or large metallic masses.

2.2 ) Select the range corresponding to the specified resonant frequency on table.

2.3) Make all the required connections indicated on table

2.4 ) Connect the trap to following circuit

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At resonance frequency the voltage  $U$  is at minimum value. If you hold the signal generator voltage  $U$  constant at this minimum value and vary the resistance  $R$  until you obtain  $U_R = \frac{1}{2}U$  the blocking impedance at resonance frequency is equal to  $R$ . the internal impedance of generator should be low.

**2.5 )** If the actual frequency is higher than the specified frequency, move the tap in the direction of encased inductance.

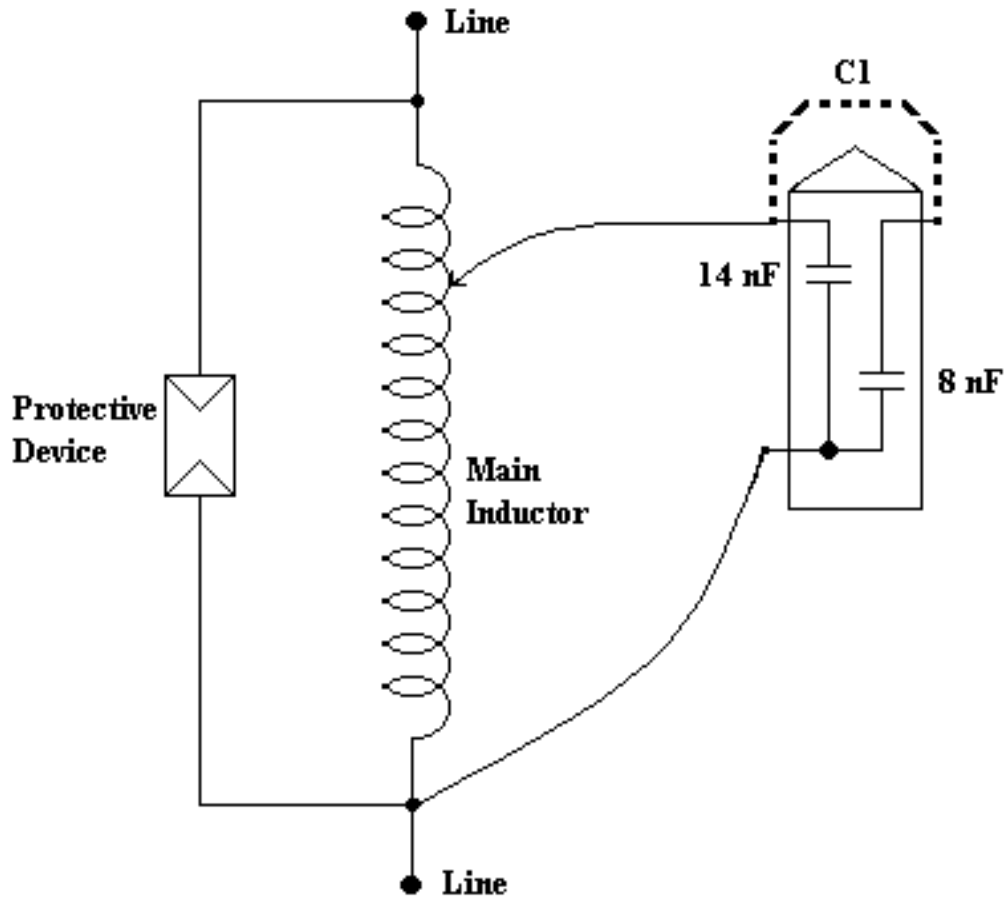
**2.6 )** If the actual frequency is lower than the specified frequency, move the tap in direction of decreased inductance.

**2.7 )** In some cases, due to the minus tolerance of the capacitors, even with the full coil in the circuit, the frequency is still too high. In this case you select the next higher capacitance and readjust the coil tap.

**2.8 )** It is desirable to have as much of the main coil inductance in the circuit as possible. In some cases, due to the limited number of capacitance steps and capacitor plus tolerances, the tuning tap has to be set at a very low inductance. In this case you should choose a smaller capacitance and readjust the coil tap. However as long as the specified 400 ohms impedance is obtained over a bandwidth of resonance frequency  $\pm 5\%$  for frequencies over 100 kHz and  $\pm 2\%$  for frequencies from 30 to 100 kHz, the trap will be operating satisfactorily.

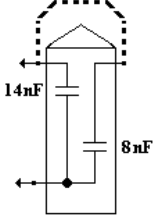
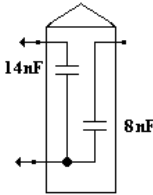
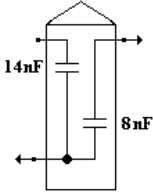
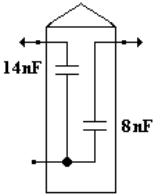
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CIRCUIT



Tuning Device type ASF 70-200 kHz. - Connected for 70 – 86 kHz

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Connections C1	Tuning Range (kHz)	Rated Capacitance (nF)
	70 - 86	22
	86 - 110	14
	110 - 136	8
	136 - 200	5.1

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