

DATE 11-12-58

SH. 1 OF 4

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TFG

TMC SPECIFICATION NO. S-400

TITLE: 17 Kc REJECTION NETWORK

JOB 1A

APPROVED

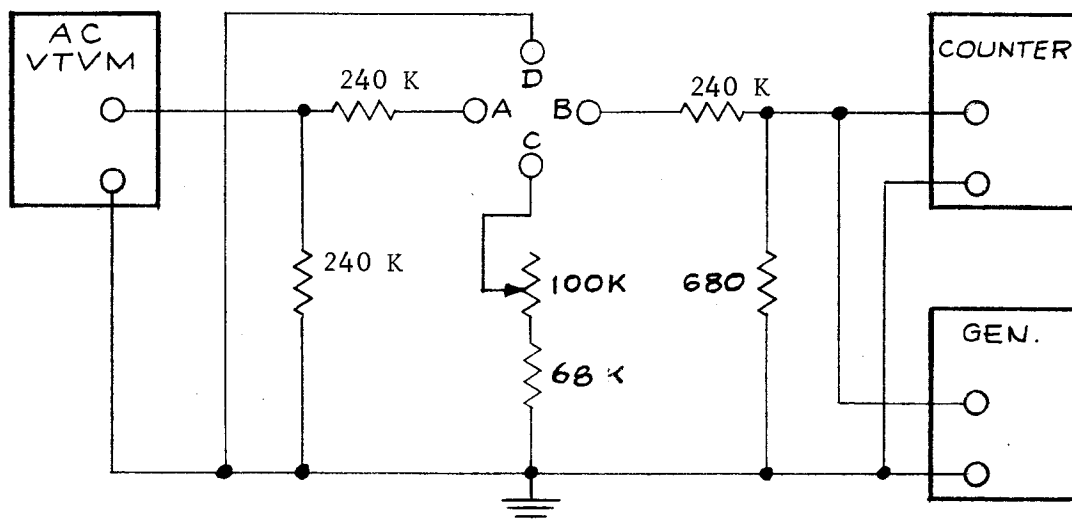
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PURPOSE:

For a given resonate frequency, f_r , and for a given capacitance there is only one value of inductance that will provide resonance. The method outlined serves this very purpose of precise adjustment of toroidal inductances.

INSTRUMENTS USED:

1. Audio Oscillator Hewlett Packard HP-2000
2. AC V.T.V.M. Daven or Heathkit
3. Resistors (3) 240 K $\frac{1}{2}$ watt
 (1) 680 Ω $\frac{1}{2}$ watt
4. Berkeley Frequency Counter Model 5500 or 5558



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PROCEDURE:

1. Connect the inductance in parallel with the capacitance of given value.
2. Adjust the Audio Generator Output connected directly to read 0 DBM (.78.V) on the A.C. meter.
3. Set the 7-45 uuf trimmer to approx. mid range.
4. Connect this resonant circuit across points A, B and C of the test set up. Refer to Schematic Diagram.
5. Adjust the frequency control of the Audio Oscillator (to 17KC+2) and Potentiometer on test set up for minimum output on A.C. Meter (55 db or better down from null).
6. Note frequency at this point on frequency counter; ($f_r = 17000 \pm 2$ cycles). Proceed only if noted frequency is lower than specified f_r . (If f_r is higher than specified, the inductance has to be replaced. Begin with new inductance at Step 1.
7. Proceed to remove turns from inductance, rechecking f_r carefully after each operation as in Step 6. (One turn approximately 15 cycles.
8. Continue to remove turns, fewer at a time, as f_r approaches the specified value.
9. Terminate the operation as soon as f_r of the inductance under test has been brought to within specified tolerance as stated in Step 6.

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10. In the case that the inductance and capacitance under test are to be used as a unit, mark both clearly as being a set and tag them securely together. DO NOT separate inductance and capacitance hereafter.

NOTE:

- A. Capacitance and additional items are listed in assembly drawings where reference is made to this specification.
- B. Note that both trimmer cap. and potentiometer are not at max and null to resonant freq of $17\text{KG} \pm 2 \sim$.
- C. After complete Assembly connect a to A and b to B and d to D. Repeat the foregoing test using Potentiometer in unit. The frequency counter should read $17000 \pm 20 \sim$.

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