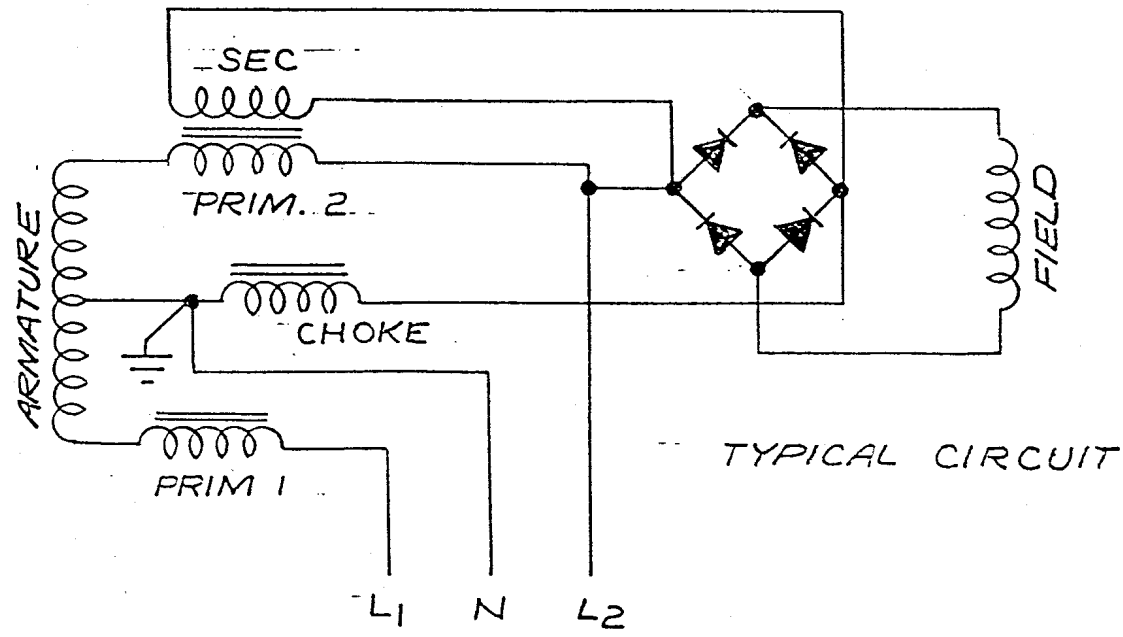
CT - Theory of operation

CURRENT TRANSFORMER -- PURPOSE AND APPLICATION

The purpose of the current transformer is to increase field excitation proportional to load to maintain voltage under load. The transformer output current will be the input current divided by the "turns ratio". (The turns ratio is secondary turns divided by primary turns).

If a transformer is reconnected in the field (new transformer installed, etc), and then the alternator will not start large motors, check for reversed connections on one of the transformer windings. The transformer must be connected with the proper "polarity" to enable the alternator to start motors of large rating relative to the alternator rating. Also, an improperly connected transformer will not provide the correct alternator voltage under load.

Primary amps times primary turns equal secondary amps times secondary turns. Changing the turns will change the output.



TYPICAL CIRCUIT

R. Case
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