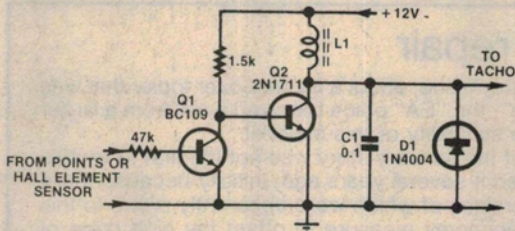


# Simulation of ignition primary circuit pulses



L1 = APPROX 300T THIN WIRE ON FERRITE CORE

*This circuit could be used to adapt an automobile tachometer to a capacitor discharge ignition system.*

It is fairly well known that the majority of electronic tachometers do not function satisfactorily with CDI ignition systems, being primarily intended for use with the conventional Kettering coil and condenser system. This circuit couples a CDI installation to a tachometer. Used with a Hall element sensor, it can provide tachometric readings on any rotating machinery such as diesel engines.

Q1 and Q2 form a simple switching circuit with Q1 normally off and Q2 normally on. L1, in conjunction with C1, functions as a dummy ignition coil, with

Q2 taking the place of the points in a conventional ignition system. When Q1 is turned on by positive pulses from the points arriving at its base, Q2 is turned off, which allows a large oscillatory voltage to be developed across L1, in the manner of a normal ignition coil primary circuit. D1 protects Q2 against reverse voltages.

*(Editor's Note: When the circuit is triggered, Q2's collector potential may rise to well over 100V. Thus it may be desirable to utilise a transistor with a higher  $V_{ce}$  rating than the 2N1711 suggested.)*

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