

Title (en)  
IGNITION DEVICE FOR COMBUSTION ENGINES

Publication  
**EP 0244633 B1 19910918 (DE)**

Application  
**EP 87104801 A 19870401**

Priority  
DE 3615548 A 19860509

Abstract (en)  
[origin: US4886037A] To prevent spurious sparks from arising at a spark plug (6) connected to the secondary (3) of an ignition coil upon sudden current rise through the primary (2) when a switching transistor (4) serially connected with the primary becomes conductive, the primary (2) of the ignition coil is serially connected with another resistor (7) to form one branch of a bridge circuit, the other branch being formed by two resistors (8, 9) connected in parallel with said first branch. The diagonal terminals (11, 11') are connected to a source of reference voltage (Uref), formed for example by a Zener diode (12) and the emitter-base path of a control transistor (13), the collector of which is connected to the base of a driver transistor (14) which is controlled from an ignition control source (i) either to conduction or non-conduction to, in turn and 180 DEG out of phase, control non-conduction and conduction of the switching transistor (4). Current from the collector of the control transistor to the base of the driver transistor (14) modifies the current to the base of the switching transistor (4) by branching current flow to the base under control of the driver transistor. Preferably, the resistor (7) in series with the primary (2) of the ignition coil is either of a value somewhat in excess of the ohmic resistance of the primary (2) of the ignition coil or the resistance value can be controlled as a function of an operating parameter of the engine of which the ignition system forms a part, for example decreasing in value as the pressure of compression within the cylinder, of which the spark plug is a part, increases.

IPC 1-7  
**F02P 3/045; F02P 3/055**

IPC 8 full level  
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