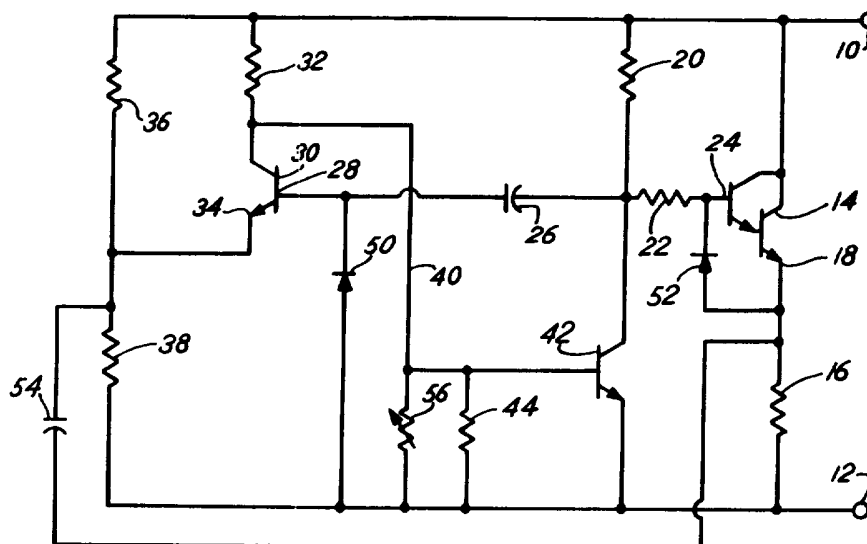




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(54) Title: ELECTRIC IGNITION MODULE



(57) Abstract

An electronic ignition module for an internal-combustion engine that is supplied with sparking energy from a rotating magnet includes a switchable semiconductor device through which current in the primary of an ignition coil is to be conducted. A portion of a circuit in the module senses a time when voltage across the semiconductor device approaches a maximum value, and produces a signal at that time that switches the semiconductor device out of conduction. A positive-feedback circuit is connected to increase the switching speed of the semiconductor device. The semiconductor device is protected against AC voltages of a polarity opposite to that of the conducting direction of the semiconductor device, and is caused to advance switching time in response to increased voltages associated with high engine speed. A temperature-sensitive resistor controls spark advance in a hot engine, reducing the amount of the advance to permit restart of the engine if it is stopped briefly.

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INTERNATIONAL SEARCH REPORT

PCT/US 91/07792

International Application No

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC		
Int.Cl. 5 F02P1/08		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
Int.Cl. 5	F02P	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹		
Category [*]	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
Y	PATENT ABSTRACTS OF JAPAN vol. 7, no. 92 (M-208)(1237) 16 April 1983 & JP,A,58 015 762 (FUJI DENKI SEIZO KK) 29 January 1983	1,2
A	see abstract	3,4,6, 10,11
Y	US,A,4 817 577 (DYKSTRA) 4 April 1989 see column 7, line 10 - column 8, line 52; figures 1,2	1,2
A		11
A	US,A,4 207 852 (OHKI ET AL.) 17 June 1980 see column 2, line 40 - column 3, line 2; figure 1	1,3
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[*] Special categories of cited documents : ¹⁰ "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "A" document member of the same patent family		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
15 APRIL 1992	13. 05. 92	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	BEQUET T.P. 	

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)		
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**ANNEX TO THE INTERNATIONAL SEARCH REPORT
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