

Title (en)  
FAULT SIMULATOR FOR CHECKING THE DIAGNOSIS IMPLEMENTED IN A CONTROL DEVICE FOR A LAMBDA SENSOR IN AN INTERNAL COMBUSTION ENGINE

Title (de)  
FEHLERSIMULATOR ZUR ÜBERPRÜFUNG DER IN EINEM STEUERGERÄT IMPLEMENTIERTEN DIAGNOSE EINER LAMBDASONDE IN EINER BRENNKRAFTMASCHINE

Title (fr)  
SIMULATEUR D'ERREURS POUR LA VÉRIFICATION DU DIAGNOSTIC IMPLÉMENTÉ DANS UN CALCULATEUR D'UNE SONDE LAMBDA DANS UN MOTEUR À COMBUSTION INTERNE

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Application  
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Abstract (en)  
[origin: WO2014016109A1] The invention relates to a method for checking the fault detection of a control device (14) in an internal combustion engine in case of a malfunction of a connected broadband lambda sensor (10), wherein the checking is performed with a fault simulator (12) arranged between the broadband lambda sensor (10) and the control device (14) and wherein the fault simulator (12) varies in a targeted manner electrical signals exchanged between the broadband lambda sensor (10) and the control device (14) in order to simulate faults of the broadband lambda sensor (10). According to the method, a Nernst voltage UNOmess (11) of the broadband lambda sensor (10) and a pump current IPMSG (16) of the control device are supplied to the fault simulator, the fault simulator (12) supplies a pump current IPsonde (15) to the broadband lambda sensor (10) and a Nernst voltage UNOstell (13) to the control device and, in order to simulate faults of the broadband lambda sensor (10), the fault simulator (12) varies the Nernst voltage UNOstell (13) supplied to the control device relative to the Nernst voltage UNOmess (11) output by the broadband lambda sensor. The invention further relates to a fault simulator for performing the method. The method and the fault simulator allow the monitoring of the fault detection by control devices for broadband lambda sensors.

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