

Title (en)
AUTHENTICATION OF CONTROL UNITS IN A VEHICLE

Title (de)
AUTHENTISIERUNG VON STEUERGERÄTEN IN EINEM FAHRZEUG

Title (fr)
AUTHENTIFICATION D'APPAREILS DE COMMANDE DANS UN VEHICULE

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Abstract (en)
[origin: WO2005116834A1] The invention particularly relates to a method for authenticating control units in a bus system of a motor vehicle. In order to effectively and inexpensively prevent a sequence control system that is stored in a control unit from being manipulated, a first control unit transmits an authentication request to an authentication apparatus via the bus system, said authentication apparatus signs the authentication request using a first symmetric key and transmits the signed authentication request or exclusively the signature to the first control unit, the first control unit compares the transmitted signature of the authentication request to a signature which is determined by the first control unit by applying the symmetric key to the authentication request, and/or the first control unit decodes the transmitted signature of the authentication request using the first symmetric key and a first hash value is obtained, and the first control unit applies a hash algorithm to the authentication request, whereby a second hash value is obtained, and the first control unit is rendered operational if the comparison of the signatures and/or the hash values is positive or if the signatures and/or the hash values match.

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