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D E C I S I O N
of 30 August 2005

Case Number: T 0927/03 - 3.2.1

Application Number: 97936914.7

Publication Number: 0921965

IPC: B60R 16/02

Language of the proceedings: EN

Title of invention:

Arrangement for responding to signals from a number of sensors and controlling a number of operating devices in a vehicle, and control unit

Applicant:

Scania CV Aktiebolag (publ)

Opponent:

-

Headword:

-

Relevant legal provisions:

EPC Art. 54, 111(1), 123(2)

Keyword:

"Novelty (yes)"
"Amendments - added subject-matter (no - after amendment)"
"Decision re appeals - remittal (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 0927/03 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 30 August 2005

Appellant: Scania CV Aktiebolag (publ)
S-151 87 Södertälje (SE)

Representative: Waldebäck, Hans Olov
Scania CV AB
Patents, TY
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 19 March 2003
refusing European application No. 97936914.7
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: S. Crane
Members: J. Osborne
G. E. Weiss

Summary of Facts and Submissions

- I. The appeal is directed against the decision posted 19 March 2003 to refuse European patent application No. 97 93 6914.7.
- II. The following prior art was cited in the file:
- D1: WO-A-93/21035
- D2: US-A-5 521 588
- D3: EP-A-0 138 710
- D4: US-A-4 293 947.
- III. The Examining Division was of the opinion that the two independent claims had been amended in such a way that the subject-matter extended beyond the content of the application as originally filed. It was furthermore of the opinion that the subject-matter of the two independent claims was not new in the light of D1.
- IV. The appellant requested with a letter dated 2 July 2003 that the decision under appeal be set aside and that the case be remitted for further processing and with a letter dated 14 April 2005 in response to a communication from the Board pursuant to Article 110(2) EPC that the further processing be based on claims 1 to 11 filed with that letter.

V. The two independent claims according to the appellant's request read as follows:

"1. Arrangement for responding to signals from various sensors (6) and controlling various operating devices (5) in a vehicle (1), and incorporating at least two control units (A-H) which are each directed to being connected to a subset of said sensors (6) and a subset of said operating devices (5) and to receive signals from said subset of sensors and send control signals to said subset of operating devices, in which each control unit (A-H) incorporates elements essentially identical to those of each of the other control units, in which the control units (A-H) are designed in such a way as to be mutually interchangeable, in which each control unit (A-H) incorporates not only a memory device (9) with a number of control programmes which are designed to respond to the various sensors and to control the various operating devices (5) but also a means (19) which is directed to activating a subset of control programmes which is designed to receive signals from the subset of sensors (6) of the relevant control unit and to send control signals to the subset of operating devices (5) of that control unit, in which each control unit (A-H) incorporates said memory device (9) that contains a permanently programmed section in which said control programmes are preprogrammed characterised in that each control unit (A-H) also incorporates a memory device (10) with a programmable memory section in which vehicle-specific parameters are stored, and in that each control unit (A-H) is directed to making it possible for said vehicle-specific parameters to be transmitted to another control unit, e.g. when the vehicle (1) is being fitted with a new control unit.

8. Control unit (A-H) for responding to signals from various sensors (6) and controlling various operating devices (5) in a vehicle (1), the unit is directed to being connected to a subset of said sensors (6) and a subset of said operating devices (5) and to receive signals from said subset of sensors and send control signals to said subset of operating devices, the control unit (A-H) incorporates means (19) which is directed to activating a subset of control programmes which are designed to receive signals from said subset of sensors (6) and to send control signals to said subset of operating devices (5), the unit (A-H) incorporates a memory device (9) that contains a permanently programmed section in which said control programmes are preprogrammed characterised in that the control unit (A-H) also incorporates a memory device (10) with a programmable memory section in which vehicle-specific parameters are stored, and in that the control unit A-H) (*sic*) is directed to making it possible for said vehicle-specific parameters to be transmitted to another control unit, e.g. when the vehicle (1) is being fitted with a new control unit."

Claims 2 to 7 and 9 to 11 concern particular embodiments of the invention and contain all features of claims 1 and 8 respectively.

VI. The appellant's submissions may be summarized as follows:

The claims have been amended to correspond to those as originally filed and the requirement of Article 123(2) EPC is now fulfilled.

D1 describes a multiplex system with a number of identical, mutually interchangeable control units, each of them comprising the same programs and the same data. Each unit comprises an EPROM corresponding to the presently claimed preprogrammed memory. D1 also describes an E²PROM for storing data to be retained when the unit is disconnected or turned off. However, there is no further disclosure as regards the memory or the data. By comparison, the unit according to present claims 1 and 8 has a programmable memory for storing parameters that are specific to an individual vehicle and which are for use during operation of the unit. The subject-matter of claims 1 and 8 therefore is new with respect to D1.

Reasons for the Decision

1. The application relates generally to multiplex electrical systems for vehicles in which devices are operated by control units in response to coded command signals. The application explains that conventionally each control unit is specific to the device which it operates, resulting in large numbers of different control units. The application sets out to reduce the number of different kinds of control units which it is necessary to use in a vehicle by making each control unit identical and each control unit contains a series of programs whereby it is capable of operating each device.

Amendments

2. The subject-matter of present claim 1 is a combination of the subject-matter of original claims 1, 2, 3, 8 and 9. Present claims 2 to 7 correspond to original claims 4, 5, 6, 7, 10 and 11 respectively.

3. Present claim 8 is based on original claim 12 and essentially combines the features of that claim together with those of original claims 9, 13, 14 and 18 and with the features from lines 5 to 9 of original claim 1. However, present claim 8 does not specify the feature in original claim 12 of "a processing device which is directed to executing said control programmes". Nevertheless, it is implicit from the wording of present claim 8 "for responding to signals ... and controlling ... operating devices" in combination with the feature that it contains "control programmes" that the control unit comprises a processor device for running those programs in order to fulfill the specified purpose. The absence of this feature from present claim 8 therefore does not cause the content of the application to extend beyond that as originally filed. Moreover, claim 1 in neither its present nor its original form specifies the feature of a processing device. Claims 9 to 11 correspond to original claims 15 to 17.

4. On the basis of the foregoing the Board concludes that the present claims do not contravene the requirements of Article 123(2) EPC.

Novelty

5. D1 relates generally to multiplex electrical systems for vehicles and in particular to an arrangement in which identical control units are employed for each of the various operating devices. Each unit comprises an EPROM containing programs to perform all of the tasks required of the units in their various locations in the vehicle. Each unit is also provided with means which enable it to determine at which of the various locations it is being employed and to then select the programs corresponding to the tasks to be performed at that location. D1 discloses all features of the preamble of each of present claims 1 and 8.

5.1 The first feature in the characterising portion of each of present claims 1 and 8 specifies that the or each control unit:

"incorporates a memory device with a programmable memory section in which vehicle-specific parameters are stored".

According to the description of the present application the expression "vehicle-specific parameters" is intended to represent the specification of a vehicle i.e. to represent which optional features are present, see page 5, lines 16 to 19 and page 8, lines 25 to 34. The part of D1 which is of possible relevance to the disclosure of the feature of storage of vehicle-specific parameters is page 7, final three lines of the first paragraph which state that each unit contains "an E²PROM for storing data to be retained when the unit is disconnected or off". The Examining Division took the

view that it is implicit that in order to function correctly the control units according to D1 need application specific parameters in the form of data which therefore is vehicle-specific and that this would be stored in the E²PROM disclosed in D1.

D1 is silent as regards which data would be stored in this memory and there is no disclosure that the data would represent the specification of the vehicle as intended by the applicant. Moreover, even if the expression "vehicle-specific parameters" were interpreted in a more general way than that intended by the applicant it is still not clearly and unambiguously disclosed that the data which according to D1 is stored in the E²PROM would be specific to the vehicle in any way.

5.2 The final feature of present claims 1 and 8 specifies that:

"the control unit is directed to making it possible for said vehicle-specific parameters to be transmitted to another control unit, e.g. when the vehicle is being fitted with a new control unit".

According to D1 all of the electronic units are identical and each one when installed in the circuit determines its location whereby the appropriate subsets of programs can be chosen. Furthermore, any unit may receive a digitally encoded message from any other unit along the data bus. However, such messages relate only to the operation of devices at other locations in the vehicle. There is no mention of the transmission of stored data from one unit to another.

6. D2 discloses control units which in a programmable memory store information concerning the vehicle configuration. A central control unit which is always present irrespective of the individual equipment of the vehicle contains a vehicle configuration memory and when a control unit is replaced the new one receives the vehicle configuration information from the central unit.

6.1 According to D2 data transfer takes place only between the central unit and the other control units. The feature of both of present claims 1 and 8 that each control unit is directed to making it possible for vehicle-specific parameters to be transmitted to another control unit is not disclosed. It follows that D2 does not disclose all features of present claims 1 and 8. Moreover, the control units according to D2 are dedicated to their operating task and therefore do not comprise the feature according to present claim 1 that they are essentially identical.

7. D3 and D4 are less relevant in respect of novelty.

8. The Board concludes from the foregoing that the subject-matter of claims 1 and 8 is new (Article 54 EPC). Since claims 2 to 7 and 9 to 11 contain all features of the respective claims from which they depend the same conclusion applies to them also.

Further procedure

9. In the contested decision the Examining Division refused the application on the grounds of addition of

subject-matter (Article 123(2) EPC) and lack of novelty (Article 54 EPC). However, since features which it found to lack novelty with respect to D1 are in fact new there remains the examination of inventive step and the appellant has requested that the case be remitted to the department of first instance for further processing. The Board therefore makes use of its discretion in accordance with Article 111(1) EPC and remits the case in accordance with the appellant's request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:

A. Vottner

S. Crane