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(54) Connector having a decoder unit for the controlled supply of the electrical provisions of a motor vehicle.

(57) A device, incorporating a decoder unit, to be used for the connection of electrical apparatus generally to supply lines.

This connection device is characterised by the fact that it is integrally formed with a decoder unit (3) enabling it to be used on supply systems of computerised type.

The said decoder unit (3) interacts with a coder unit (3') which can be actuated in dependence on the specific user to which the connector (1) is connected.

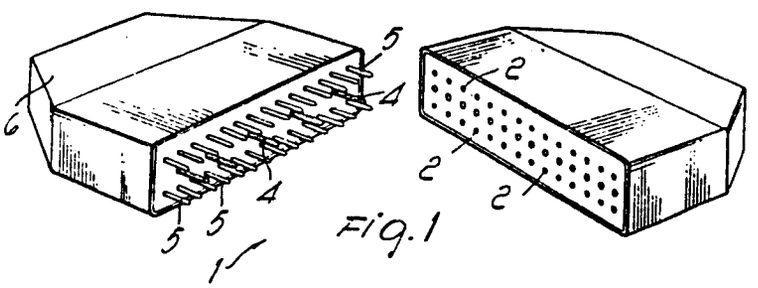

Fig. 1

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TITLE MODIFIED
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"A connector having a decoder unit for the control and supply of electrical services of a motor vehicle."

The present invention relates to a connector, provided with a decoder, for the control and supply of electrical services of a motor vehicle.

As is known, modern day electronic technology permits all the electrical services of motor vehicles generally to be actuated by means of a central processing unit.

To this end reference can be made, for example, to Italian Patent application No. 22318 A/85 filed 1.10.1985 by the same applicant.

In practice, by using one of the said computerised systems, when the user operates a specific switch this is suitably coded and transmitted to the said central unit which, in dependence on a suitable programme, sends a given packet of pulses to the peripheral units.

Obviously, the various services are actuated by first decoding the transmitted signal in a manner such as to check if the signal itself is of proper form or not.

The object of the present invention is that of simplifying the assembly operations of the various component parts by providing a connector for the supply of electrical services of a vehicle, which directly

incorporates the decoder unit.

Within the scope of the above-explained object, a particular object of the present invention is that of providing a connector for the supply of electrical services of a vehicle, which can be utilised equally well for different services.

The said object, as well as the above-listed objects and others which will possibly become better apparent hereinbelow are achieved according to the invention by a connector for the supply of electrical services of a vehicle, characterised by the fact that a decoder unit is integrally formed therein, which can be programmed in dependence on the specific user (for example light unit) to which the connector is connected.

Further characteristics and advantages of the connector for electrical services of a vehicle, which constitutes the subject of the present invention, can be better understood with the aid of the following description of a preferred embodiment of the connector itself, illustrated purely by way of indication in the attached drawing in which:

In Figure 1 this equipped connector is shown schematically in perspective view;

In Figure 2 the connector is shown in section.

With particular reference to the numerical symbols of the said figure, the equipped connector in question, generally indicated (1) is provided with a series of sockets or connector seats (2) and incorporates a decoder unit (3) having a programmable input configuration.

More precisely, the said decoder unit includes a coder part (3') which can be actuated by simple spikes (4) of plastics material formed, together with the pins (5), for the necessary electrical connections, on the user unit (6) to be connected.

By means of this structural arrangement, in practice, the said decoder unit is able to identify its call code in dependence on the number and positioning of the spikes (4) so that, if the unit is connected to the left light unit it will respond, for example, to the call code 3, whilst, if it is connected to the right unit it will respond, again for example, to the code 2.

Consequently it is possible:
- to produce a single type of unit in place of a plurality of different units;
- to exchange the units themselves in the case of breakage;
- to utilise a single spare adapted to many functions.

From what has been explained hereinabove it will be apparent how the connector thus formed is adapted to be utilised on different vehicles, respecting on the one hand an advantageous criterion of standardisation and creating, on the other hand, high production volumes with all the consequent advantages: first, among others, the economic saving and great reliability.

Obviously, this equipped connector has been described and illustrated hereinabove purely by way of indicative, but non-limitative example, and only for the purpose of demonstrating the practicability and general characteristics of the present invention so that there can be introduced thereto all those variations and modifi-

cations within the scope of an expert in the art and capable of being brought into the ambit of the above-explained inventive concept.

Claims:

1. A connector for the supply of electrical services of a vehicle, characterised by the fact that it comprises a decoder unit (3) interacting with a coder unit (3') which can be actuated in dependence on the specific user to which the connector (1) is connected.

2. A connector for the supply of electrical services of a vehicle, as in the preceding claim, characterised by the fact that the said decoder unit ()3 has an input configuration programmable by means of a coder unit (3').

3. A connector for the supply of electrical services of a vehicle, as in the preceding Claims, characterised by the fact that it includes spikes (4) formed, together with the electrical connector pins (5) on the specific unit to be connected, the said spikes (4) being operable to actuate the coder unit.

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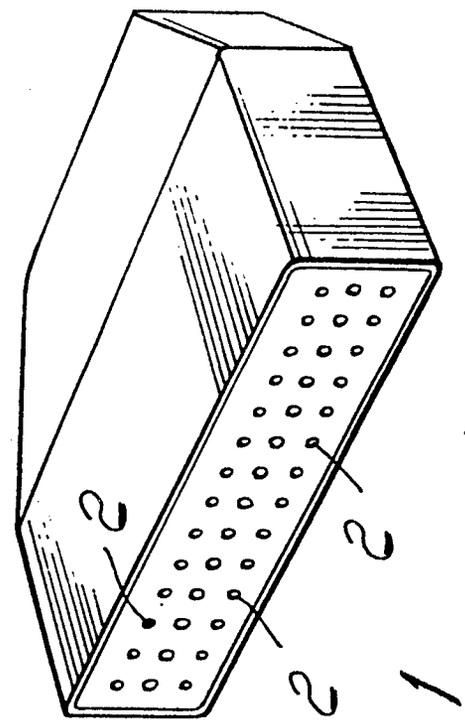
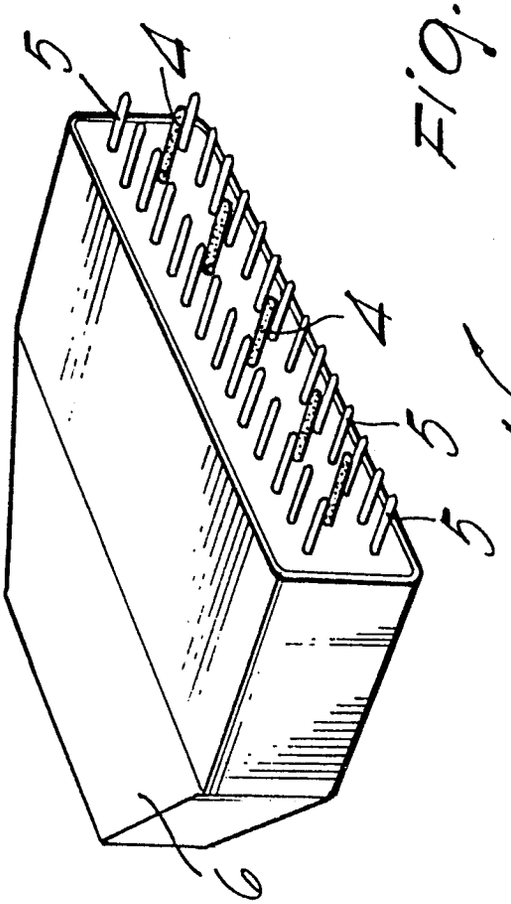


Fig. 1



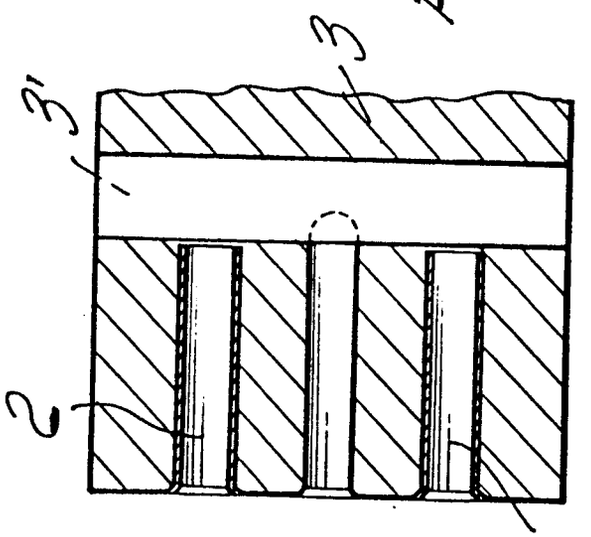


Fig. 2