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EUROPEAN PATENT APPLICATION

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⑤④ **Method of transporting data to and from semi-automatic ticket-issuing machines on board vehicles, e.g. buses.**

⑤⑦ The invention relates to a method of transporting data to and from semi-automatic ticket-issuing machines on board vehicles, e.g. buses. According to the invention data to the ticket-issuing machine, e.g. faretables and other control information, as well as data from the ticket-issuing machine, e.g. information about tickets sold and the state and doings of the ticket-issuing machine and/or the vehicle, are transported by means of one and the same kind of storage medium.

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Method of transporting data to and from semi-automatic
ticket-issuing machines on board vehicles, e.g. buses.

The present invention relates to a method of transporting data to and from semi-automatic ticket-issuing machines on board vehicles, e.g. buses.

5 It is known in such semi-automatic ticket-issuing machines to store faretables and other control information for the ticket-issuing machines in e.g. electronic memories on printed circuit boards. Thus, each time the faretables are changed the memory unit has to be exchanged. This necessitates manipulation with the ticket-issuing machine
10 and, thus, specially trained personnel.

It is also known in such semi-automatic ticket-issuing machines to register information about tickets sold and the state and doings of the ticket-issuing machine and/or the vehicle on a magnetic tape or the like.

15 The object of the present invention is to simplify the transportation of data to and from the ticket-issuing machines at the same time as it is ensured that the vehicles obtain the data that are intended for them.

This is attained according to the invention in that
20 data to the ticket-issuing machine, e.g. faretables and other control information, as well as data from the ticket-issuing machine, e.g. information about tickets sold and the state and doings of the ticket-issuing machine and/or the vehicle, are transported by means of one and the same
25 kind of storage medium.

This transportation can be carried out by the normal operator of the ticket-issuing machine and, thus, does not require specially trained personnel.

The data transportation method according to the invention will be described more in detail below.
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In order to store faretables and other control information for the ticket-issuing machines in connection with semi-automatic ticket-issuing machines on board vehicles, e.g. buses, it is suggested according to the present invention that a storage medium on which the fare-
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tables and other control information have been centrally pre-programmed, is applied to the ticket-issuing machines to be called in by the operator by manual actuation of the ticket-issuing machine in order to automatically determine the fare. According to the invention it is suggested that the same kind of storage medium is used for registering data on board the vehicle, e.g. information about tickets sold and the state and doings of the ticket-issuing machine and/or the vehicle. The reading and evaluation of the latter data is to be carried out centrally.

According to the invention each such storage medium can be used for transporting data to as well as from the ticket-issuing machines.

Even if other storage media are possible a magnetic tape cassette will preferably be used.

According to the invention each storage medium is pre-programmed with data relating to faretables for e.g. a large number of bus lines within one and the same district. In this case the ticket-issuing machines are provided with a working memory into which only those portions of the faretables and control information that are relevant to the respective ticket-issuing machine are automatically read from the storage medium when the medium is applied to the ticket-issuing machine. Hereby, the speed of locating the fare information relevant to each line will be increased.

Claims:-

1. Method of transporting data to and from semi-automatic ticket-issuing machines on board vehicles, e.g. buses, characterized in that data to the ticket-issuing machine, e.g. faretables and other control information, as well as data from the ticket-issuing machine, e.g. information about tickets sold and the state and doings of the ticket-issuing machine and/or the vehicle, are transported by means of one and the same kind of storage medium.
2. Method according to claim 1, characterized in that each specimen of such storage medium is used for transporting data to as well as from the ticket-issuing machines.
3. Method according to claim 1 or 2, characterized in that a magnetic tape cassette is used as storage medium.
4. Method according to any of claims 1-3, characterized in that the ticket-issuing machines are provided with a working memory for storing only those portions of the faretables and control information on said storage medium that are relevant to the respective ticket-issuing machine.



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	<p>IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol. VT-22, no. 2, May 1973, pages 36-41 R.L. FRENCH et al.: "Automatic route control system"</p> <p>* Page 36, column 1, abstract, lines 1-15 *</p> <p>--</p>	1,3	G 07 B 5/04 G 07 C 5/08
	<p><u>DE - A - 2 840 980</u> (HAMANO)</p> <p>* Page 23, line 22 - page 26, line 16; page 38, line 12 - page 41, line 11; page 46, line 20 - page 48, line 16; figures 1,2 *</p> <p>--</p>	1,2,4	<p>TECHNICAL FIELDS SEARCHED (Int. Cl.)</p> <p>G 07 B 5/00 5/04 13/00- 13/10 15/00 15/02 G 07 C 5/00 5/08 5/10 G 07 G 1/00 1/02 G 07 F 5/20 5/22 9/00 9/08</p>
	<p><u>FR - A - 2 359 469</u> (AUTELCA)</p> <p>* Page 1, line 1 - page 10, line 38; figures *</p> <p>--</p>	1,3	CATEGORY OF CITED DOCUMENTS ./. X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
	<p><u>GB - A - 1 315 998</u> (OCHOJNA)</p> <p>* Page 1, line 51 - page 3, line 5; figure 1 *</p> <p>----</p>	1,3	&: member of the same patent family, corresponding document
<p>X The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
The Hague	06-07-1981	RUDOLPH	



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Office

EUROPEAN SEARCH REPORT

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Application number

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
			TECHNICAL FIELDS SEARCHED (Int. Cl.³)