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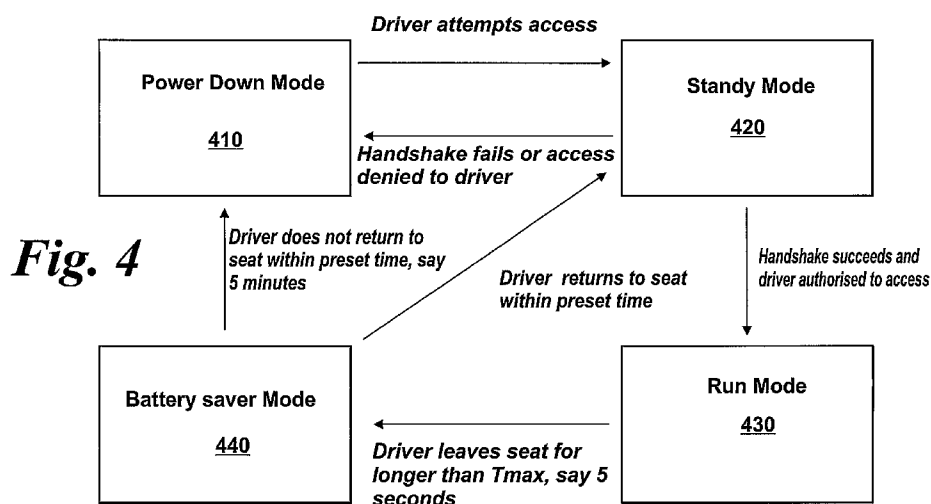
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9 April 2009

(54) Title: CONTROL SYSTEM FOR A BATTERY POWERED VEHICLE



(57) Abstract: A control system for a battery powered vehicle of the kind which is provided with an electric power source and at least one switch means, such as a contactor, which is operable to connect the output of the power source to a high power electrical item fitted to the vehicle, such as an electric drive motor, in which the control system is operable to set the vehicle in one of at least 3 different operating modes comprising a first mode in which the vehicle is immobilised and the contactor is held in an open position to isolate the battery from the electrical item, a second mode in which the vehicle is not immobilised and the contactor is held in a closed position to connect the battery to the electrical item, and a third mode in which the vehicle is immobilised but the contactor remains in an open position to connect the battery to the electrical item.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. B60R25/04 F02N11/08 B60L11/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B60R F02N B60L G07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2 366 431 A (BROWN PHILIP [GB]) 6 March 2002 (2002-03-06) page 1, paragraphs 4,7 page 3, line 11 - line 12; figure 1	1
X	DE 43 05 361 A1 (SIEMENS AG [DE]) 25 August 1994 (1994-08-25) column 4, line 68 - column 5, line 40; figures 1-3	1-3,6,7, 9,10,12, 15
X	DE 40 30 880 A1 (FISCHER LAGERTECHNIK [DE]) 9 April 1992 (1992-04-09) column 1, line 8 - line 25 column 1, line 48 - line 68 column 2, line 39 - line 61	1-3,6,7, 12,15
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

29 January 2009

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INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/236970 A1 (INADA TAKAHIRO [JP] ET AL) 26 October 2006 (2006-10-26) paragraphs [0039], [0040], [0042], [0043], [0046], [0048], [0049], [0060], [0061], [0066], [0073]; figures 1,2,5	1-10,12, 14-16
X	US 5 521 443 A (IMURA YOSHIKAZU [JP] ET AL) 28 May 1996 (1996-05-28)	1,2, 7-10,12
Y	column 4, line 31 - line 56 column 5, line 50 - column 6, line 5; figures 3,4,6	17
Y	US 2004/227615 A1 (JOHN NANTZ [US] ET AL) 18 November 2004 (2004-11-18) paragraphs [0023], [0026]; figure 1	17
X	DE 100 21 811 A1 (DAIMLER CHRYSLER AG [DE]) 15 November 2001 (2001-11-15) paragraphs [0008], [0010], [0011]; claim 1; figure 1	18,19,22
A	US 2006/090204 A1 (OGISO HARUHIKO [JP]) 27 April 2006 (2006-04-27) paragraphs [0020], [0021] paragraph [0033] - paragraph [0037]	18,20
A	US 6 107 695 A (DENZ HELMUT [DE] ET AL) 22 August 2000 (2000-08-22) column 2, line 6 - line 46 column 3, line 16 - line 55; figure 1	18
A	DE 41 41 504 A1 (UNITED TECHNOLOGIES AUTOMOTIVE [US]) 20 August 1992 (1992-08-20) column 2, line 27 - column 3, line 34	23-26

INTERNATIONAL SEARCH REPORT

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-17

Vehicle access control system with driver location access condition

2. claims: 18-22

Vehicle security system with enhanced security

3. claims: 18-22

Vehicle access control system with door identification and setting means.

INTERNATIONAL SEARCH REPORT

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