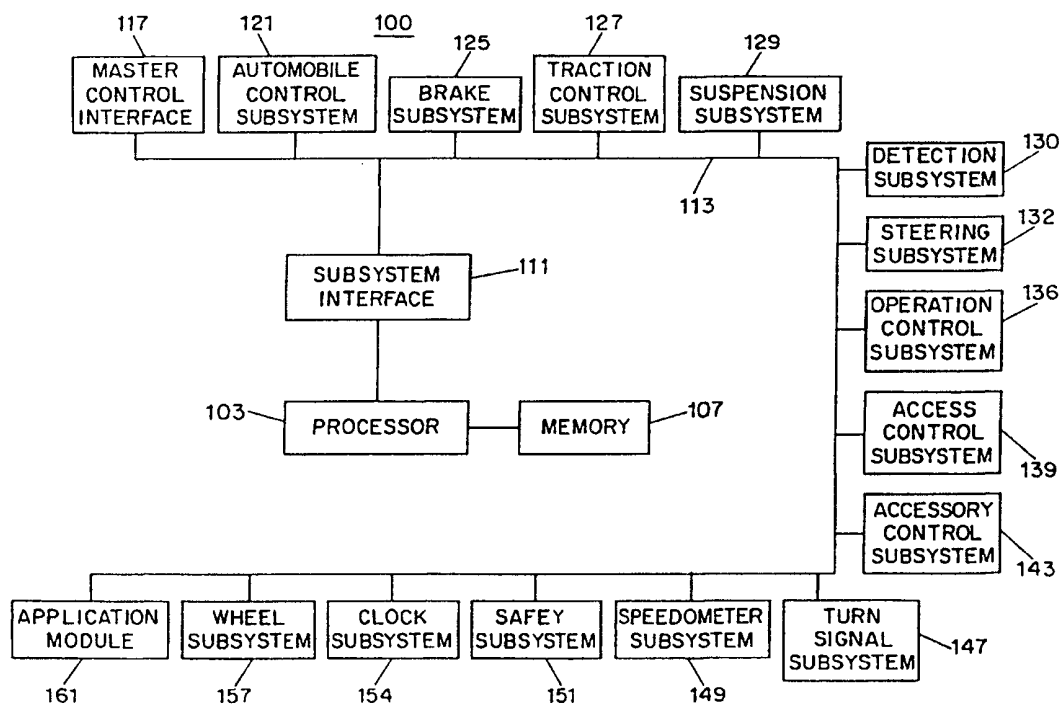




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>B60R 25/10, G01S 13/93, H04B</b> <b>1/00, G06F 3/00</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 99/06987</b>  <b>(43) International Publication Date:</b> 11 February 1999 (11.02.99)
<b>(21) International Application Number:</b> PCT/US98/15416  <b>(22) International Filing Date:</b> 24 July 1998 (24.07.98)  <b>(30) Priority Data:</b> 08/904,855      1 August 1997 (01.08.97)      US  <b>(71) Applicant:</b> CALCAR ADVERTISING, INC. [US/US]; Suite 139, 122 S. El Camino Real, San Clemente, CA 92672 (US).  <b>(72) Inventor:</b> OBRADOVICH, Michael, L.; 1904 Aveneda Salvador, San Clemente, CA 92672 (US).  <b>(74) Agent:</b> YIP, Alex, L.; P.O. Box 670425, Flushing, NY 11367 (US).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>  <b>(88) Date of publication of the international search report:</b> 29 April 1999 (29.04.99)

(54) Title: CENTRALIZED CONTROL AND MANAGEMENT SYSTEM FOR AUTOMOBILES



## (57) Abstract

In a control and management system for automobiles, a central processor (103) in the system connects unrelated vehicle subsystems (157) together to realize synergistic function smart driving and automatic parking. A master interface having a display is employed in the system to help a user control and manage the vehicle functions (961).

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/15416

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :B60R 25/10; G01S 13/93; H04B 1/00; G06F 3/00

US CL :345/326, 349, 357; 701/51, 43, 301; 340/426, 905; 434/66

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)

U.S. : 345/326, 349, 357; 701/51, 43, 301; 340/426, 905; 434/66

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 practicable, search terms used)

APS, icon, object, collision avoidance, vehicle navigation, highway information, fail-safe system, vehicle used instruction and testing

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,214,793 A (CONWAY et al.) 25 May 1993, col. 3, lines 9-67.	1-91
Y, P	US 5,684,490 A (YOUNG et al) 04 November 1997, col. 4, lines 6-61.	1-91
Y	US 4,481,584 A (HOLLAND) 06 November 1984, col. 14, lines 1-68.	1-91
Y	US 5,621,252 A (BUCKNAM) 15 April 1997, col. 9, lines 3-36.	1-91
A, E	US 5,790,973 A (BLAKER et al) 04 August 1998 see entire document.	1-91



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*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
*A* document defining the general state of the art which is not considered to be of particular relevance	*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
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Date of the actual completion of the international search

13 JANUARY 1999

Date of mailing of the international search report

01 MAR 1999

Name and mailing address of the ISA/US  
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/15416

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international 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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

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

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers 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.  
☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/15416

### BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

Group I, claim(s) 1-12, 54-63, 65 and 81-90. Classified in US Class 345/349 "Metaphor Icon Objects".

- a) drawn to an interface for selecting at least one of the items.
- b) displaying a plurality of vehicle items.
- c) programming a plurality of groups of sources providing entertainment.

Group II, claim(s) 13-20, 39-42, 64, 66, 75-76 and 91. Classified in US Class 701/301 "Collision Avoidance".

- a) drawn to define a zone on the display, zone representing an area in which the vehicle is.
- b) interface for showing map; and defining a space for parking the vehicle.
- c) providing an indicator indicative of the traffic condition in the area.

Group III, claim(s) 21-25 and 67. Classified in US Class 345/357 "Navigation Within Structure".

- a) drawn to providing an indicator indicating that the sub-options are available for selection, and access one or more of the sub-option.
- b) a display element having a touch-screen capability.

Group IV, claim(s) 26-28 and 68-69. Classified in US Class 701/51 "Transmission Control".

- a) drawn to system for operating a vehicle moving a selected direction.
- b) an interface for selecting a gear to change an operation of the vehicle.
- c) system for operating a moving vehicle engaged in a first selected gear.

Group V, claim(s) 29-36 and 70-73. Classified in US Class 340/905 "Highway Information".

- a) drawn to providing an indicator indicative of the weather condition based on the information.

Group VI, claim(s) 37-38 and 74. Classified in US Class 701/43 "Fail-safe System".

- a) drawn to a mechanism for providing automatic steering.
- b) selecting lane is designed in an automated highway system.

Group VII, claim(s) 43-52 and 77-79. Classified in US Class 340/426 "Of burglary or unauthorized use".

- a) drawn to the user being assigned a security code and a clearance level.
- b) identifying the current position of the vehicle, and position any obstacles surrounding the space.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US98/15416

Group VIII, claim(s) 53 and 80. Classified in US Class  
434/66 "Real Vehicle Used In Instruction or Testing".

- a) drawn to testing the user's operation of the vehicle.
- b) a mechanism for moving the vehicle to transport at least  
a user in the vehicle.

The inventions are distinct, each from the other because of the following reasons: Invention I is displaying a plurality of vehicle items(claims 1-12, 54-63, 65 and 81-90), Invention II is providing an indicator indicative of the traffic condition in the area (claims 13-20, 39-42, 64, 66, 75-76 and 91), Invention III a display element having a touch-screen capability (21-25 and 67), Invention IV system for operating a vehicle moving a selected direction (claims 26-28 and 68-69), Invention V providing an indicator indicative of the weather condition base on the information (claims 29-36 an 70-73), Invention VI a mechanism for providing automatic steering(claims 37-38 and 74), Invention VII the user being assigned a security code and a clearance level (claims 43-52 and 77-79) and Invention VIII is testing the user's operation of the vehicle are unrelated.