(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 15 May 2008 (15.05.2008)

(10) International Publication Number $WO\ 2008/058222\ A3$

- (51) International Patent Classification: **B60L 1/00** (2006.01)
- (21) International Application Number:

PCT/US2007/083998

(22) International Filing Date:

7 November 2007 (07.11.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

11/593,682 7 November 2006 (07.11.2006) US

- (71) Applicant (for all designated States except US): SMART-DRIVE SYSTEMS, INC. [US/US]; 10655 Roselle Street, Suite 100, San Diego, CA 92121 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PLANTE, James [US/US]; 1155 Camino Del Mar, Del Mar, CA 92014 (US). KASAVARAJU, Ramesh [US/US]; 10655 Roselle Street, Suite 100, San Diego, CA 92121 (US). LIGHT-NER, Bruce [US/US]; 10655 Roselle Street, Suite 100, San Diego, CA 92121 (US).

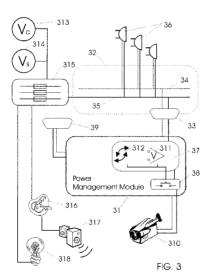
- (74) Agent: DEHAEMER, Michael, J.; Luce, Forward, Hamilton & Scripps LLP, 11988 El Camino Real, Suite 200, San Diego, CA 92130 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

(88) Date of publication of the international search report: 31 July 2008

(54) Title: POWER MANAGEMENT SYSTEMS FOR AUTOMOTIVE VIDEO EVENT RECORDERS



(57) Abstract: Video event recorders are coupled to a vehicle power source via an on-board diagnostic system including its power bus, data bus, and scanner port connector. A video event recorder is provided with a power input configured to connect to a standard ODB-II connector. Systems further include an extension cable between the connector and the vehicle event record to accommodate mounting needs associated with each. In advanced embodiments, both OBD power and data networks are coupled to the vehicle event recorded such that data relating to vehicle diagnostic systems can be captured along with video data in response to a triggering event. In addition, some embodiments are provided with special detection mechanism to determine the use state of a vehicle and adjust application of power accordingly. Thus an "in-use" detector is coupled to the vehicle and/or OBD systems to help conserve and regulate power usage.



INTERNATIONAL SEARCH REPORT

International application No. PCT/US 07/83998

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - B60L 1/00 (2008.04) USPC - 307/10.1			
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) USPC: 307/10.1			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 307/9.1; 323/304 (text searched)			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(USPT,PGPB,EPAB,JPAB); Google Scholar Search Terms -OBD, onboard diagnostic, detect, power, management, control, motion, data			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where app	propriate, of the relevant passages	Relevant to claim No.
Х	US 2005/0078423 A1 (Kim) 14 April 2005 (14.04.2005), entire document, especially para. [0008] and [0017]		1-3, 5, 7-10, and 13-16
- Y			4, 6, 11, 12, and 17
Y	US 2005/0043869 A1 (Funkhouser et al.) 24 February 2005 (24.02.2005), entire document, especially para. [0008]		4, 6, and 17
Y	US 2002/0111756 A1 (Modgil) 15 August 2002 (15.08.2002), entire document, especially Abstract		11
Y	US 6,762,513 B2 (Landgraf et al.) 13 July 2004 (13.07.:	2004), entire document, especially col. 2,	12
Further documents are listed in the continuation of Box C.			
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "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			
"E" earlier application or patent but published on or after the international "X" document of particular relevance filing date considered novel or cannot be		considered novel or cannot be considered	ered to involve an inventive
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other "Y special reason (as specified)		"Y" document of particular relevance; the claimed invention cannot be	
"O" document referring to an oral disclosure, use, exhibition or other means combined with one or more other such documents, such combination being obvious to a person skilled in the art			
"P" document published prior to the international filing date but later than "&" document member of the same patent family the priority date claimed			
	actual completion of the international search 08 (21.04.2008)	16 MAY 2008	ch report
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents		Authorized officer: Lee W. Young	
P.O. Box 1450, Alexandria, Virginia 22313-1450		PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774	