



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
14.04.2004 Bulletin 2004/16

(51) Int Cl.7: **E05F 15/00**, H01Q 13/24,
B60J 1/17

(43) Date of publication A2:
02.05.2001 Bulletin 2001/18

(21) Application number: **00203488.2**

(22) Date of filing: **08.10.2000**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
 Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Sharmila, Ghosh**
55128 Mainz (DE)

(74) Representative: **Denton, Michael John et al**
Delphi European Headquarters,
64 avenue de la Plaine de France,
Paris Nord II,
BP 60059,
Tremblay-en-France
95972 Roissy Charles de Gaulle Cédex (FR)

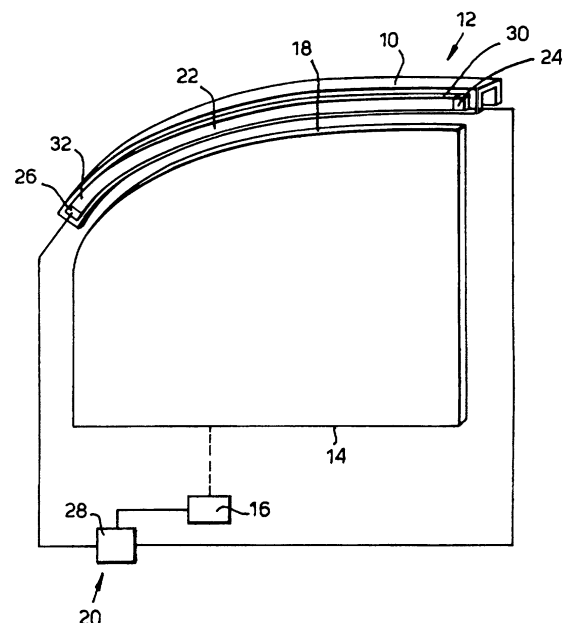
(30) Priority: **27.10.1999 GB 9925303**

(71) Applicant: **Delphi Technologies, Inc.**
Troy, MI 48007 (US)

(54) **Obstruction detection for a window**

(57) A system (20) for the detection of an obstruction in the path of a closing window (14) which is movable by an electric motor (16) and which has an edge (18) receivable in a portion (10) of a window frame (12) on closing of the window, the system comprising a dielectric waveguide (22) mountable on the portion of the window frame; a high frequency transmitter (24) connected to one end (30) of the waveguide for transmitting a high frequency signal into the waveguide to produce an evanescent field; a high frequency receiver (26) connected to the other end (32) of the waveguide for receiving the evanescent field; and a control unit (28) for monitoring the evanescent field received by the receiver, the control unit being connectable to the electric motor to control the operation of the motor dependent on the signal received by the receiver.

Fig.1.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 20 3488

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	WO 97 06518 A (UNIV CALIFORNIA) 20 February 1997 (1997-02-20) * abstract *	1-4	E05F15/00 H01Q13/24 B60J1/17
Y	US 5 621 290 A (HANNDORF KLAUS ET AL) 15 April 1997 (1997-04-15) * abstract * * column 4, line 23 - line 33; figures * * column 6, line 8 - line 28 * * figures *	1-4	
A	US 5 907 213 A (NAITO TAKAKI ET AL) 25 May 1999 (1999-05-25) * abstract * * column 2, line 47 - line 49 * * figures *	1	
A	US 2 493 157 A (MELCHIOR HUBERT E ET AL) 3 January 1950 (1950-01-03) * column 1, line 17 - line 21 * * column 1, line 31 - line 33 * * figures *	1	
A	US 5 424 745 A (FONSNY PAUL) 13 June 1995 (1995-06-13) * abstract * * column 3, line 46 - line 52 * * column 5, line 24 - line 30 * * figures *	1	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 February 2004	Examiner Van Kessel, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 20 3488

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-02-2004

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9706518 A	20-02-1997	US 5661385 A	26-08-1997
		AU 6715796 A	05-03-1997
		DE 69623297 D1	02-10-2002
		DE 69623297 T2	13-02-2003
		EP 0842504 A1	20-05-1998
		WO 9706518 A1	20-02-1997
US 5621290 A	15-04-1997	DE 69413170 D1	15-10-1998
		DE 69413170 T2	02-06-1999
		EP 0648628 A1	19-04-1995
		ES 2120577 T3	01-11-1998
		GB 2282848 A ,B	19-04-1995
		GB 2319294 A ,B	20-05-1998
US 5907213 A	25-05-1999	JP 10132669 A	22-05-1998
		DE 19748076 A1	07-05-1998
		GB 2318907 A ,B	06-05-1998
US 2493157 A	03-01-1950	NONE	
US 5424745 A	13-06-1995	BE 1005734 A5	11-01-1994
		CA 2095097 A1	30-10-1993
		EP 0568518 A1	03-11-1993