# (19) World Intellectual Property Organization International Bureau





#### (43) International Publication Date 13 February 2003 (13.02.2003)

### **PCT**

# (10) International Publication Number WO 03/011630 A3

(51) International Patent Classification<sup>7</sup>: H04N 7/18

(21) International Application Number: PCT/US02/24065

**(22) International Filing Date:** 30 July 2002 (30.07.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/309,011 31 July 2001 (31.07.2001) U

(71) Applicant (for all designated States except US): ILLINOIS TOOL WORKS INC. [US/US]; 3600 West Lake Avenue, Glenview, IL 60025 (US).

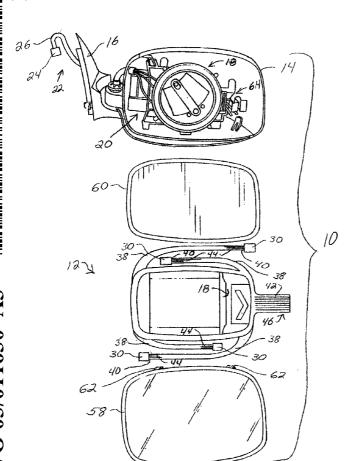
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MORETH, Cary,

P. [US/US]; 161 Braintree Lane, Bloomingdale, IL 60180 (US). BULGAJEWSKI, Edward [US/US]; 31164 Oakview Drive, Genoa, IL 60135 (US). NORRIS, Tim [US/US]; 1248 High Plaine Drive, Crystal Lake, IL 60014 (US). ARNOLD, Erik [DE/DE]; Hauptstrasse 12, 69517 Gorxheimertal (DE). HEARN, Laurence, M. [GB/GB]; Quinneys, Itchenor Road, Itchenor, Chichester, West Sussex PO20 7DD (GB). TUREK, James, A. [US/US]; 336 South Kensington, La Grange, IL 60525 (US). IRISH, Kenneth [US/US]; 2080 West Lunt, Chicago, IL 60645 (US). CUBON, Mike [US/US]; 351 Bristol Street, Northfield, IL 60093 (US).

- (74) Agent: DONOVAN, Paul, F.; Illinois Tool Works Inc, 3600 West Lake Avenue, Glenview, IL 60025 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

[Continued on next page]

(54) Title: POWER DISTRIBUTION SYSTEM



(57) Abstract: A power distribution system (12) is provided for an automobile mirror assembly (10) or the like, and includes a flexible membrane (32) having electrical traces (42, 44) electrically connected to the vehicle electrical system (28), and connecting sites (30) for electrically connecting to various power consumers (18) in the mirror assembly (10).

# WO 03/011630 A3



GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR).

#### Published:

with international search report

- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 24 July 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/24065

		PC1/USU2/2	4003
A. CLASSIFICATION OF SUBJECT MATTER			
IPC(7) : H04N 7/18			
US CL : 348/148, 152; 340/575, 438; 359/265, 273, 603			
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.: 348/148, 152; 340/575, 438; 359/265, 273, 603			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) USPTO APS EAST			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where ap	propriate of the relevant passages	Relevant to claim No.
Y	US 5,818,650 A (NYHOF et al) 06 October 1998 (0		1-24
•	(Variation of the or of th	w.10.1990), see charee document.	1-24
Y	US 6,244,716 B1 (STEENWYK et al) 12 June 2001 (12.06.2001), see entired document.		
Y	US 6,124,886 A (DELINE et al) 26 September 2000 (26.09.2000), see entired document.		
:			
Further	documents are listed in the continuation of Box C.	See patent family annex.	
* S	pecial categories of cited documents:		he international filing date or priority
	defining the general state of the art which is not considered to be lar relevance	date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"E" earlier ap	plication or patent published on or after the international filing date		e; the claimed invention cannot be onsidered to involve an inventive step ne
	which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"Y" document of particular relevance considered to involve an invention	e; the claimed invention cannot be ve step when the document is
"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 the priority date claimed		"&" document member of the same patent family	
Date of the actual completion of the international search		Date of mailing of the international search report	
03 March 2003 (03.03.2003)		05 JUN 2003 ×	
		Authorized officer	
Commissioner of Patents and Trademarks Box PCT		HUNG BUI	
Washington, D.C. 20231			$O \cap I$
Facsimile No. (703) 305-3230		Telephone No. (703) 308-3121	Kenseka da

Form PCT/ISA/210 (second sheet) (July 1998)