



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**07.08.2002 Bulletin 2002/32**

(51) Int Cl.7: **D06F 39/02, D06F 39/08**

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

(21) Application number: **00120376.9**

(22) Date of filing: **18.09.2000**

(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) Inventors:  
 • **Peressi, Valentino**  
**33100 Udine (IT)**  
 • **Babuin, Piero**  
**33170 Pordenone (IT)**

(30) Priority: **28.10.1999 IT PN990082**

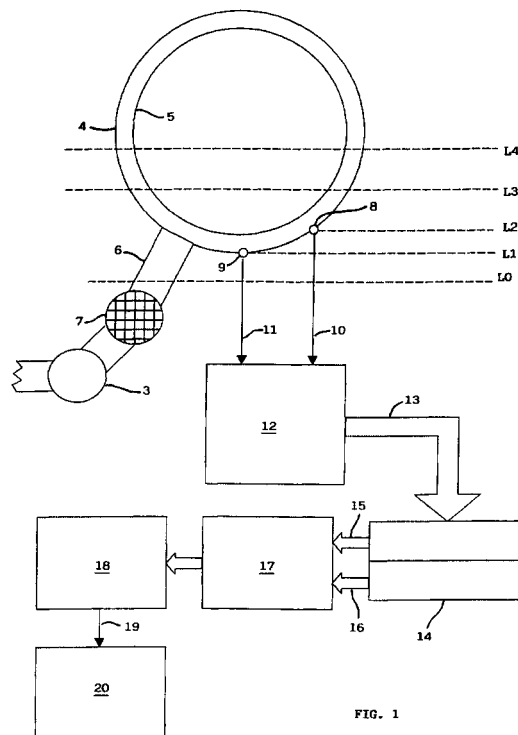
(74) Representative: **Busca, Luciano et al**  
**PROPRIA S.r.l.**  
**Via Mazzini 13**  
**33170 Pordenone (IT)**

(71) Applicant: **Electrolux Zanussi S.p.A.**  
**33170 Pordenone (IT)**

(54) **Method for controlling the metered amount of detergent in an automatic washing machine or the like**

(57) In a clothes washing machine that comprises a washing tub (4) containing a drum (5), and is adapted to carry out a washing and rinse cycle followed by respective water discharge phases, the method calls for:

- during each water discharge phase, the time intervals ( $T_w$ ,  $T_r$ ) to be measured, which elapse from the instant in which the water in the tub (4) lowers down to a first level ( $L_2$ ), to the instant in which the water further decreases down to a level ( $L_1$ ); and
- when the ratio ( $R$ ) between the so measured time intervals ( $T_w$ ,  $T_r$ ) is detected to be higher than a given threshold value ( $R_x$ ), an alarm signal to be generated which is indicative of an excessively metered amount of detergent.





European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 00 12 0376

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)
D,A	GB 2 052 251 A (LICENTIA GMBH) 28 January 1981 (1981-01-28) * the whole document *	1	D06F39/02 D06F39/08
A	EP 0 247 995 A (AUSTRIA ANTRIEBSTECH) 2 December 1987 (1987-12-02) * the whole document *	1	
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 18, 5 June 2001 (2001-06-05) -& JP 01 040098 A (MATSUSHITA ELECTRIC IND CO LTD), 10 February 1989 (1989-02-10) * abstract *	1	
D,A	EP 0 193 825 A (ZANUSSI ZELTRON INST) 10 September 1986 (1986-09-10)		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)  D06F
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>19 June 2002</b>	Examiner <b>Debard, M</b>
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p> <p>&amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P0401)

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

EP 00 12 0376

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.

19-06-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
GB 2052251	A	28-01-1981	DE	2917859 A1	13-11-1980
			FR	2455648 A1	28-11-1980
			IT	1131108 B	18-06-1986
EP 0247995	A	02-12-1987	AT	388944 B	25-09-1989
			AT	142386 A	15-02-1989
			DK	266987 A	28-11-1987
			EP	0247995 A1	02-12-1987
JP 01040098	A	10-02-1989	JP	1977330 C	17-10-1995
			JP	7004465 B	25-01-1995
EP 0193825	A	10-09-1986	IT	1187273 B	23-12-1987
			AT	57723 T	15-11-1990
			DE	3675035 D1	29-11-1990
			EP	0193825 A2	10-09-1986
			ES	551385 D0	16-11-1986
			ES	8701261 A1	16-02-1987
			JP	1595675 C	27-12-1990
			JP	2018116 B	24-04-1990
			JP	61199898 A	04-09-1986
			US	4703633 A	03-11-1987

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82