



- (51) International Patent Classification:
G06F 3/02 (2006.01) H01H 13/70 (2006.01)
H01H 9/02 (2006.01)
- (21) International Application Number: PCT/IB2013/054881
- (22) International Filing Date: 14 June 2013 (14.06.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 61/662,488 21 June 2012 (21.06.2012) US
- (71) Applicant: KONINKLIJKE PHILIPS N.V. [NL/NL]; High Tech Campus 5, NL-5656 AE Eindhoven (NL).
- (72) Inventor: NG, Kian, Ho; c/o High Tech Campus, Building 5, NL-5656 AE Eindhoven (NL).
- (74) Agents: COOPS, Peter et al.; High Tech Campus, Building 5, NL-5656 AE Eindhoven (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, 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, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

- (88) Date of publication of the international search report: 3 April 2014

(54) Title: TWO-SHOT INJECTION MOLDED HOUSING WITH SEATS FOR KEYCAPS IN USER-INTERFACE

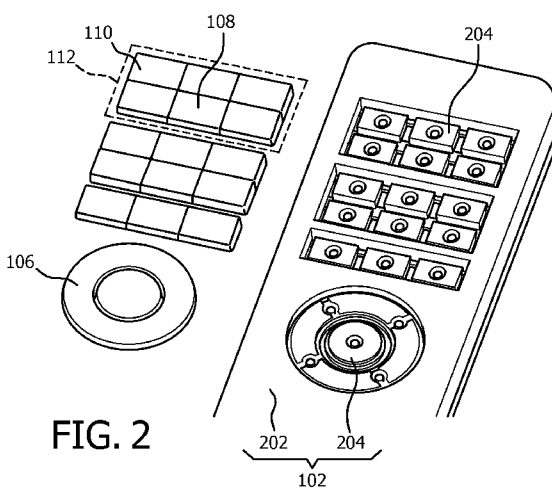


FIG. 2

(57) Abstract: A device has a housing with a top part that accommodates one or more pressable keys forming the user-interface of the device. Each specific key has a specific keycap. The top part is formed from a harder plastic element and a softer rubber layer in a two-shot injection molding process. The harder plastic element has one or more openings occupied by the softer rubber layer. The harder plastic element has a specific pin positioned in a specific hole of the softer rubber layer. The specific keycap has a bottom face with a specific protruding sleeve configured for engaging with the specific pin. The bottom face of the specific key and an area at a top face of the softer rubber layer have complementarily shaped profiles configured for accurately orienting the keycap relative to the top part.



INTERNATIONAL SEARCH REPORT

International application No PCT/IB2013/054881
--

A. CLASSIFICATION OF SUBJECT MATTER INV. G06F3/02 H01H9/02 H01H13/70 ADD.				
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) G06F H01H				
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) EPO-Internal				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	WO 2009/109875 A1 (KONINKL PHILIPS ELECTRONICS NV [NL]; NG KIAN H [SG]) 11 September 2009 (2009-09-11) the whole document	1-4		
A	US 2005/024240 A1 (FYKE STEVEN H [CA] ET AL) 3 February 2005 (2005-02-03) the whole document	1-4		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none; vertical-align: top;"> "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 "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 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"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 "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 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"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 "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 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family			
Date of the actual completion of the international search	Date of mailing of the international search report			
13 February 2014	20/02/2014			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Valin, Steven			

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2013/054881

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2009109875	A1	11-09-2009	NONE

US 2005024240	A1	03-02-2005	CA 2473478 A1 15-01-2005
			EP 1498805 A2 19-01-2005
			GB 2403930 A 19-01-2005
			US 2005024240 A1 03-02-2005
