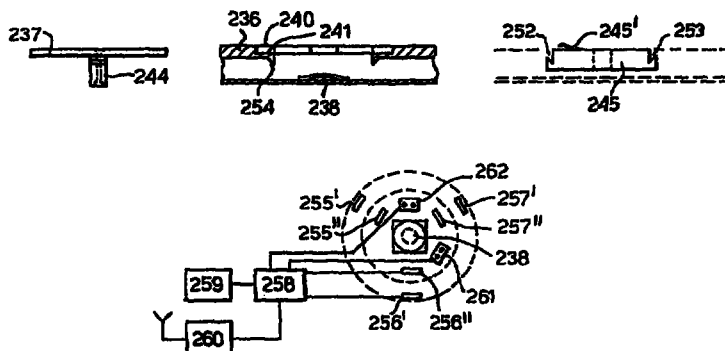




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H01H		A2	(11) International Publication Number: WO 00/34965
			(43) International Publication Date: 15 June 2000 (15.06.00)
(21) International Application Number: PCT/NO99/00373		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, 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, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 8 December 1999 (08.12.99)			
(30) Priority Data:			
19985770	9 December 1998 (09.12.98)	NO	
19993598	23 July 1999 (23.07.99)	NO	
19994723	28 September 1999 (28.09.99)	NO	
(71)(72) Applicant and Inventor: BADARNEH, Ziad [NO/NO]; Carl Kjelsens vei 34, N-0874 Oslo (NO).			
(74) Agent: LANGFELDT, Jens, F., C.; Bryns Patentkontor A/S, P.O. Box 765, Sentrum, N-0106 Oslo (NO).		Published Without international search report and to be republished upon receipt of that report.	

(54) Title: KEYPAD DEVICE



(57) Abstract

A keypad device for telephones, mobile phones, remote control units, text and character transmitters, calculators, electronic planners or the like, wherein a control element, when actuated manually by an operator, is adapted to be able to carry out at least two function commands, and preferably wherein the movement of the control element can be felt manually, or optionally is indicated by sound and/or light. The device consists of an apparatus housing in which a control wheel is pivotally mounted, wherein the control wheel in a sprung manner is supported and mounted at least at three portions thereof; a fixing bracket device which is rotationally stationary in the apparatus housing, but tiltable relative to the housing, the fixing bracket device being pivotally connected to the control wheel and provided with at least two pins extending into slots in the housing, whereby the rotational motion of the fixing bracket device is prevented and its tilting motion is limited; at least one detector for detecting the rotational motion of the control wheel, the control wheel either on its underside or its periphery being provided with optical markings and said detector being positioned opposite said markings; and either at least one light emitter/light receiver set positioned at a distance from the underside of the control wheel and which, upon downward tilting of the control wheel at the location of the light emitter/light receiver set in the apparatus housing, actuates the path of the light beam between the light emitter and light receiver; or at least one tilt detector, e.g., a microswitch, positioned at a distance from the underside of the control wheel and which, upon downward tilting of the control wheel at the location of the tilt detector in the apparatus housing, actuates the tilt detector.