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(21) International Application Number: PCT/IL99/00082 (22) International Filing Date: 9 February 1999 (09.02.99) (30) Priority Data: 123242 9 February 1998 (09.02.98) IL (71) Applicant (for all designated States except US): ABP TEK LTD. [IL/IL]; P.O. Box 16120, 91160 Jerusalem (IL). (72) Inventor; and (75) Inventor/Applicant (for US only): NITZAN, Meir [IL/IL]; Beit-El, 90631 D.N. Mizrah Binyamin (IL). (74) Agent: FRIEDMAN, Mark, M.; Beit Samueloff, Haomanim Street 7, 67897 Tel Aviv (IL).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: METHOD AND DEVICE FOR ARTERIAL BLOOD PRESSURE MEASUREMENT		
<pre> graph TD 18[18: Pressure Cuff] --> 16[16: Pump and Pressure Meter] 16 --> 12[12: Processor and Controller] 12 -- 12b --> 8a[8: Amplifier/Modulator] 12 -- 12b --> 8b[8: Amplifier/Modulator] 8a --> 6a[6: Sensor] 8b --> 6b[6: Sensor] 6a --> 18 6b --> 18 </pre>		
(57) Abstract <p>A device for measuring arterial blood pressure in a subject, includes a pressure cuff (18) applicable to a first region of the subject's body so as to affect blood flow through at least one artery in the first region, and a pressure controller (12a) connected to the pressure cuff (18) so as to vary a current pressure of the pressure cuff (18). First and second plethysmography sensors (2)(4), applicable to second and third regions of the subject's body, are configured to produce first and second signals, respectively, indicative of systolic pulsatile variations in tissue blood volume in the second and third regions, respectively. A processor (12b) is associated with the pressure controller (12a) and with the first and second plethysmography sensors (2)(4). The processor (12b) is configured to process the first and second signals to derive a parameter relating to a size of pulses in each of the first and second signals at a range of different values of the current pressure; calculate values of a ratio of the parameter for corresponding pulses of the first and second signals; identify a current pressure corresponding to each of the values of the ratio; and identify as the diastolic pressure a value of the variable pressure corresponding substantially to a stationary point in a relationship between the ratio and the current pressure.</p>		