4 AUG 2006

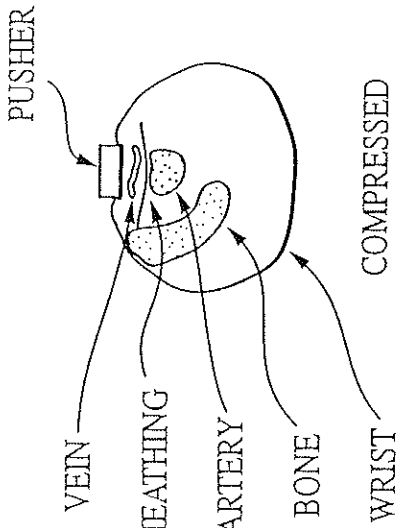


FIG. 2

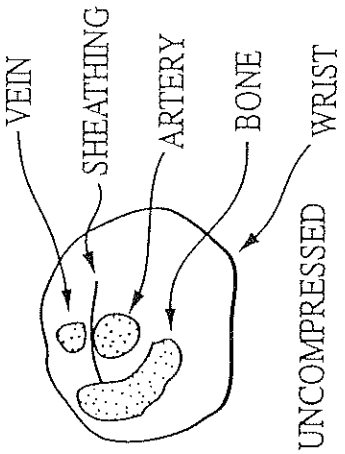


FIG. 1

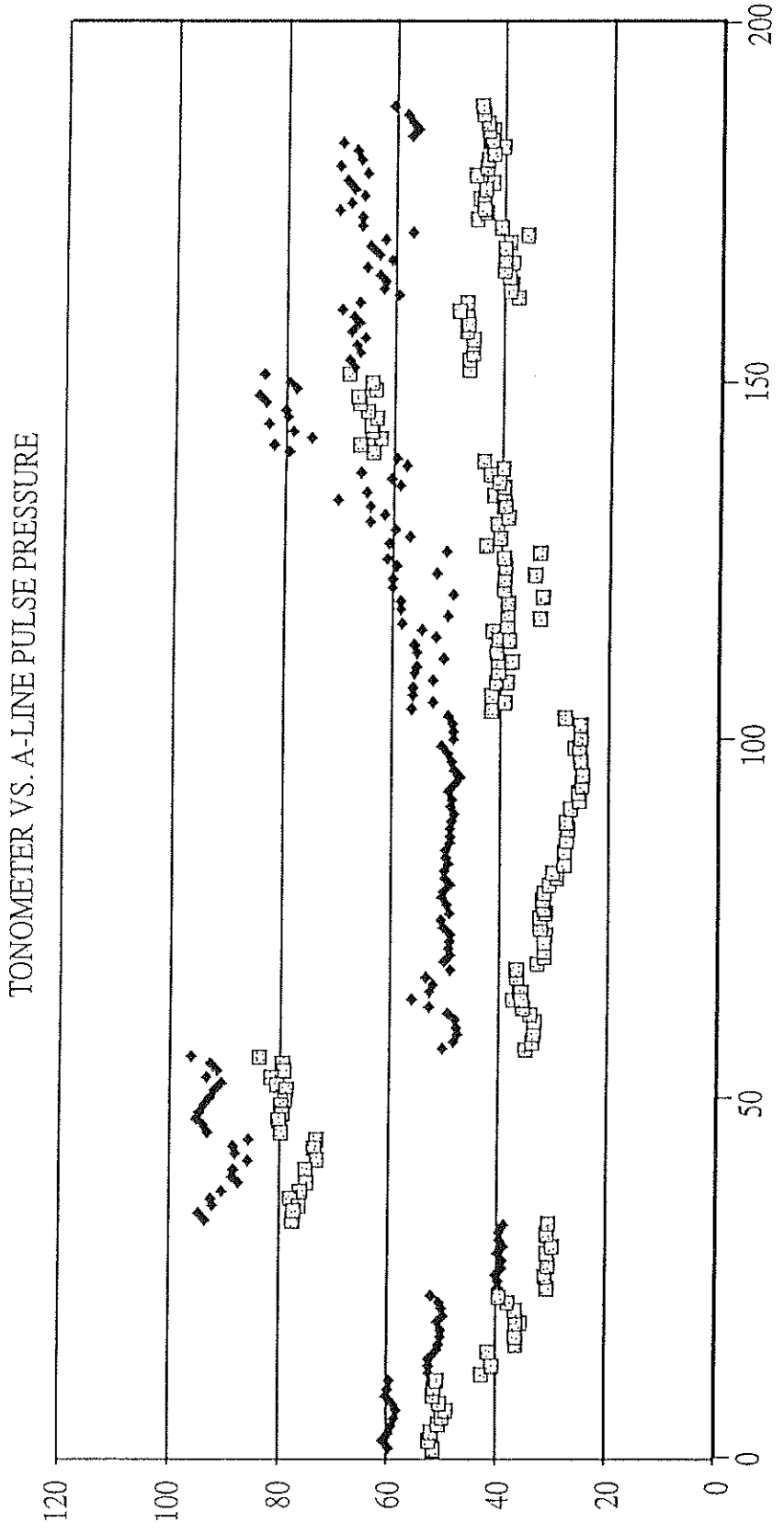

TONOMETER VS. A-LINE PULSE PRESSURE
120
100
80
60
40
20
0
0
50
100
150
200

FIG. 3

4 AUG 2006

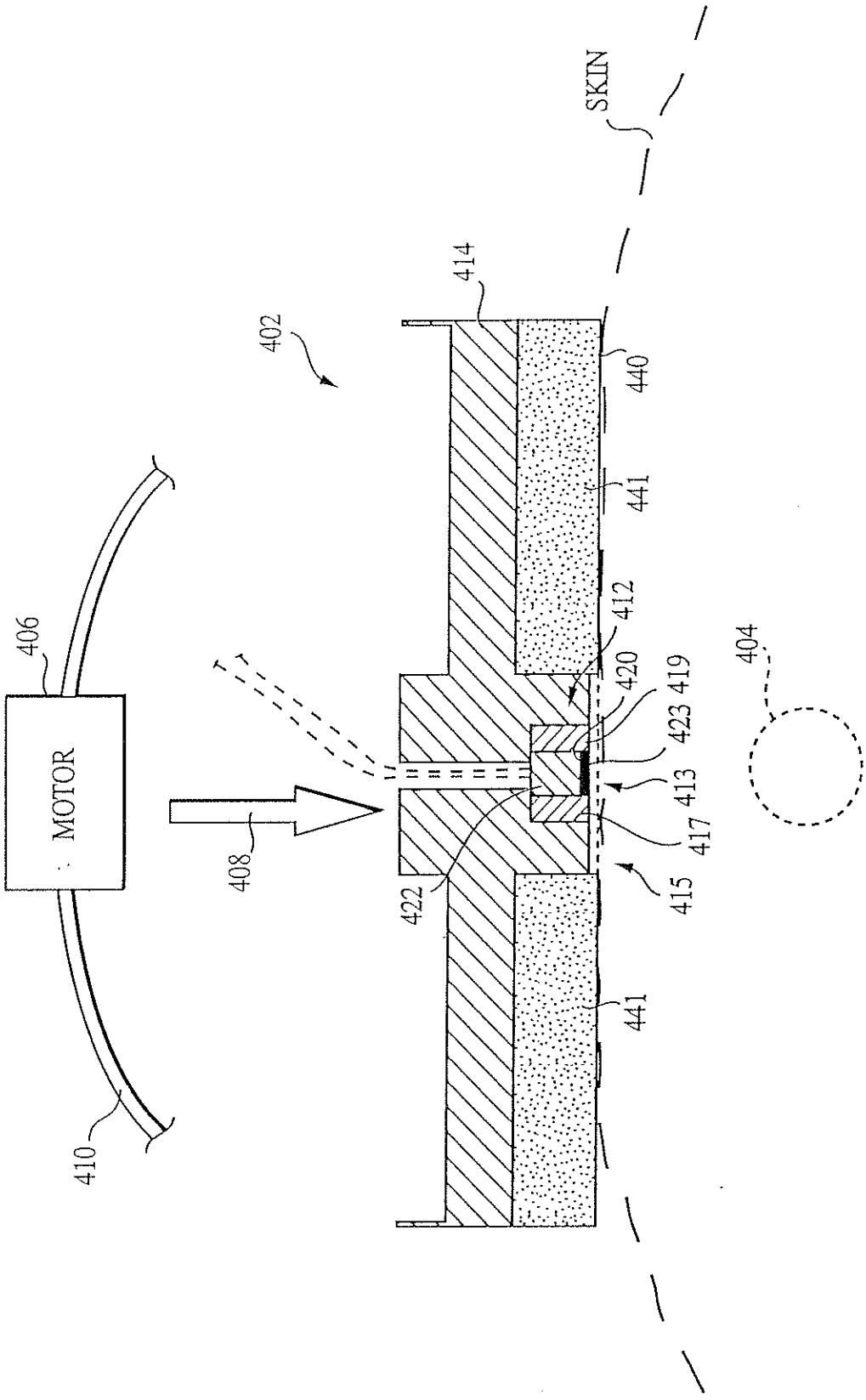


FIG. 4

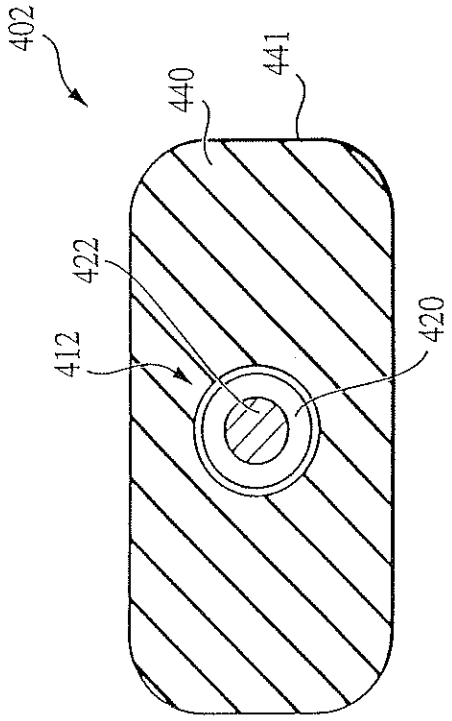


FIG. 4a

4 AUG 2006

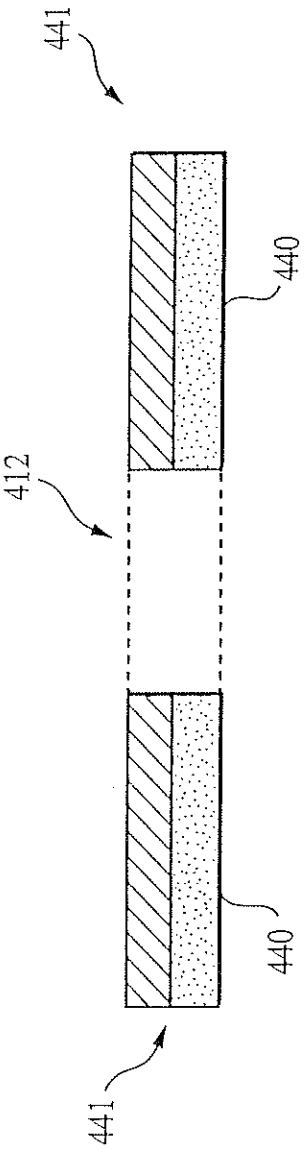


FIG. 4b

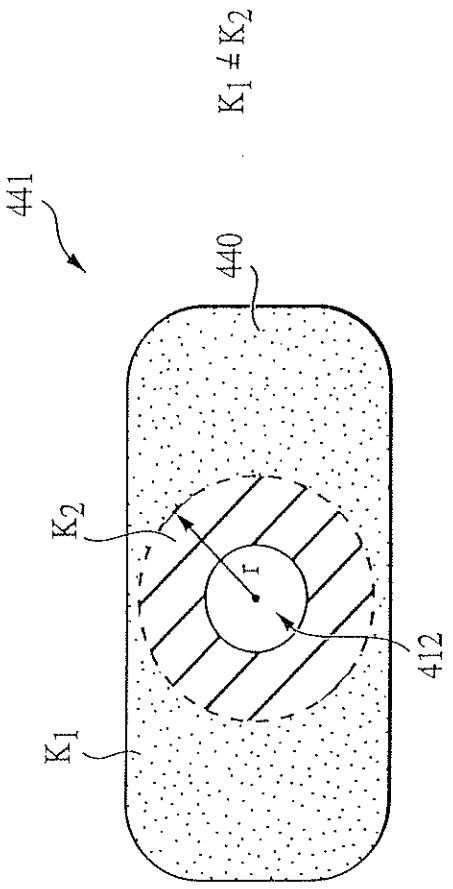


FIG. 4c

- 4 AUG 2006

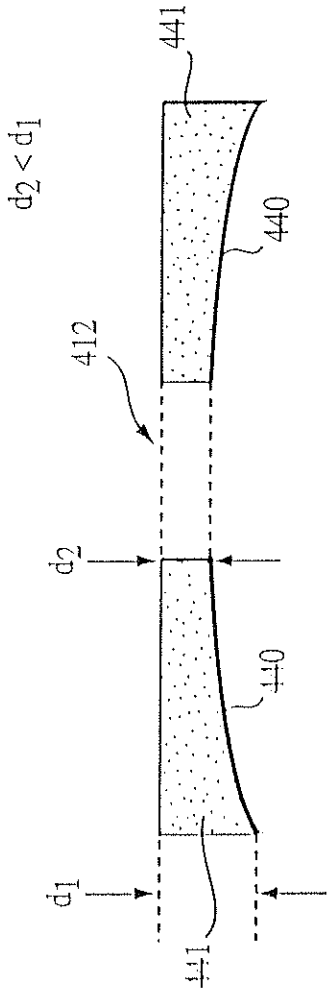


FIG. 4d

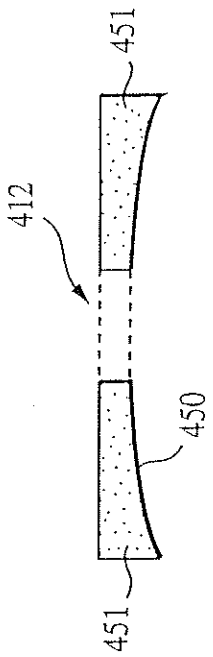


FIG. 4f

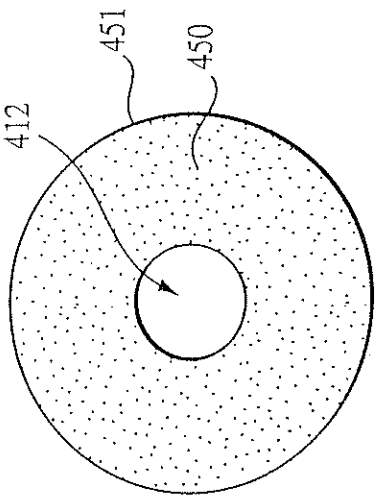


FIG. 4e

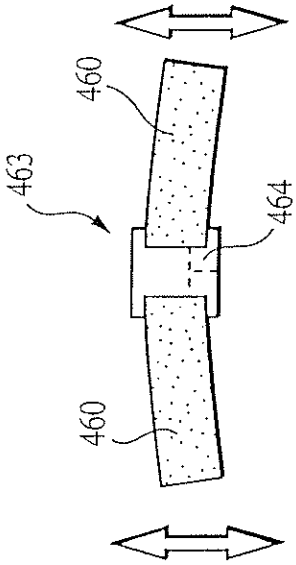


FIG. 4h

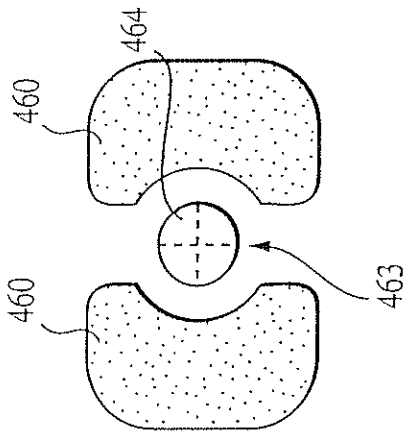


FIG. 4g

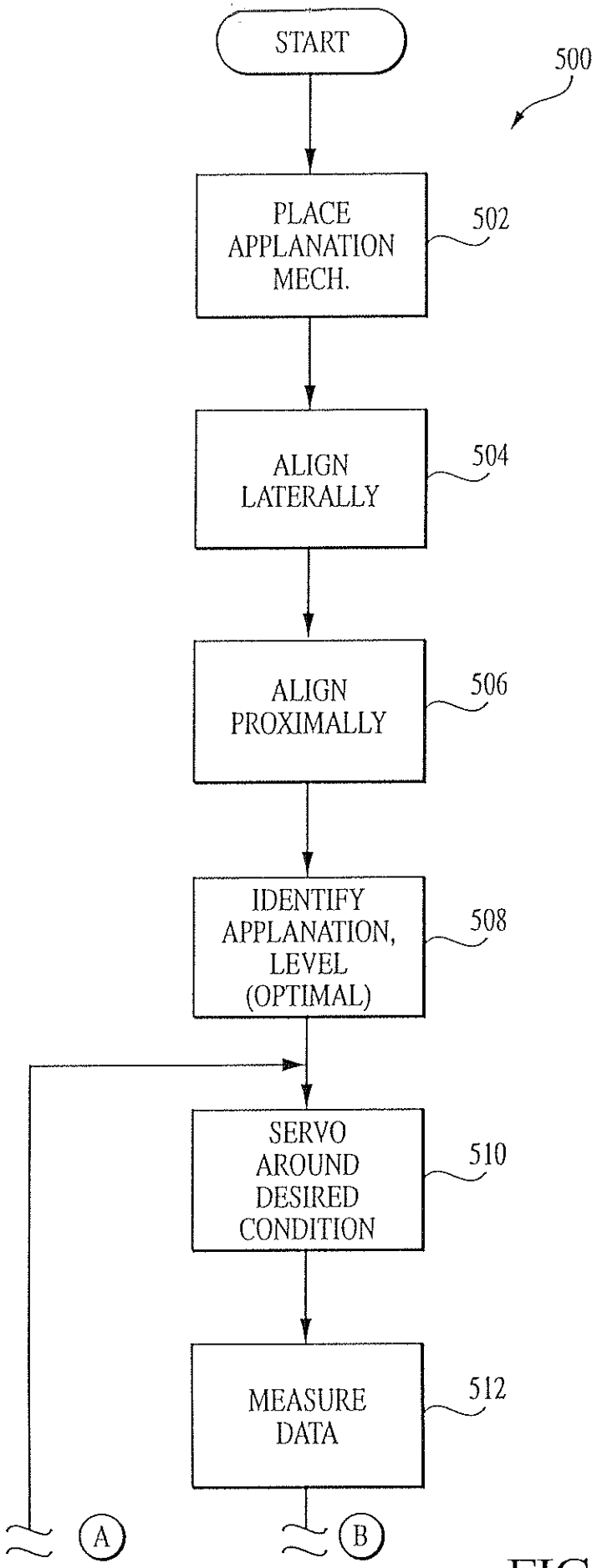

START
500
PLACE APPLANATION MECH.
502
ALIGN LATERALLY
504
ALIGN PROXIMALLY
506
IDENTIFY APPLANATION, LEVEL (OPTIMAL)
508
SERVO AROUND DESIRED CONDITION
510
MEASURE DATA
512
A
B

FIG. 5
(1 OF 2)

4 AUG 2006

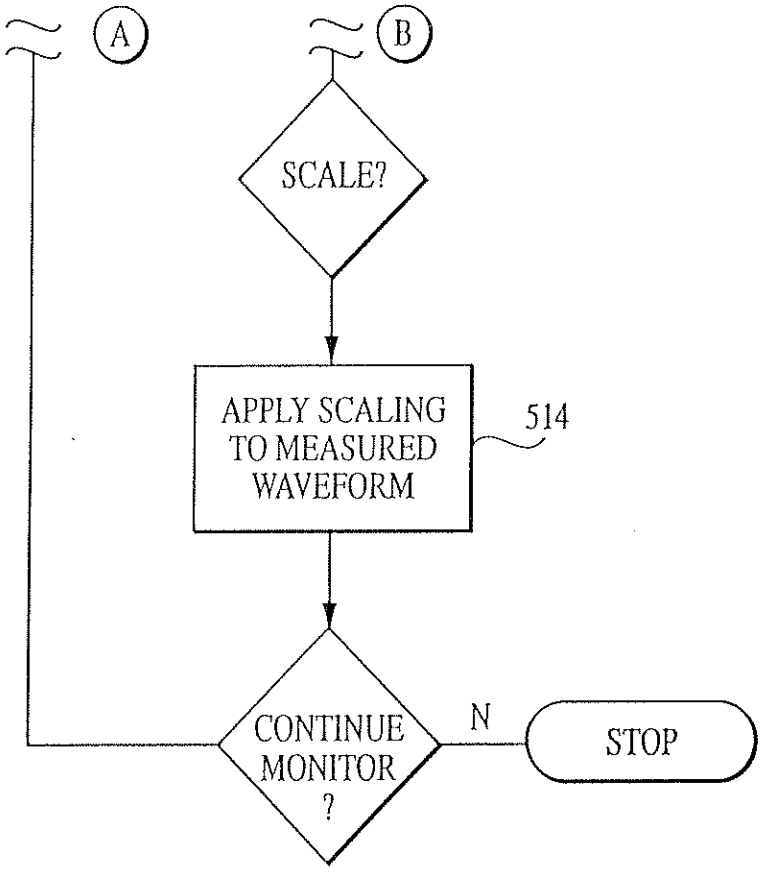


FIG. 5
(2 OF 2)

4 AUG 2006

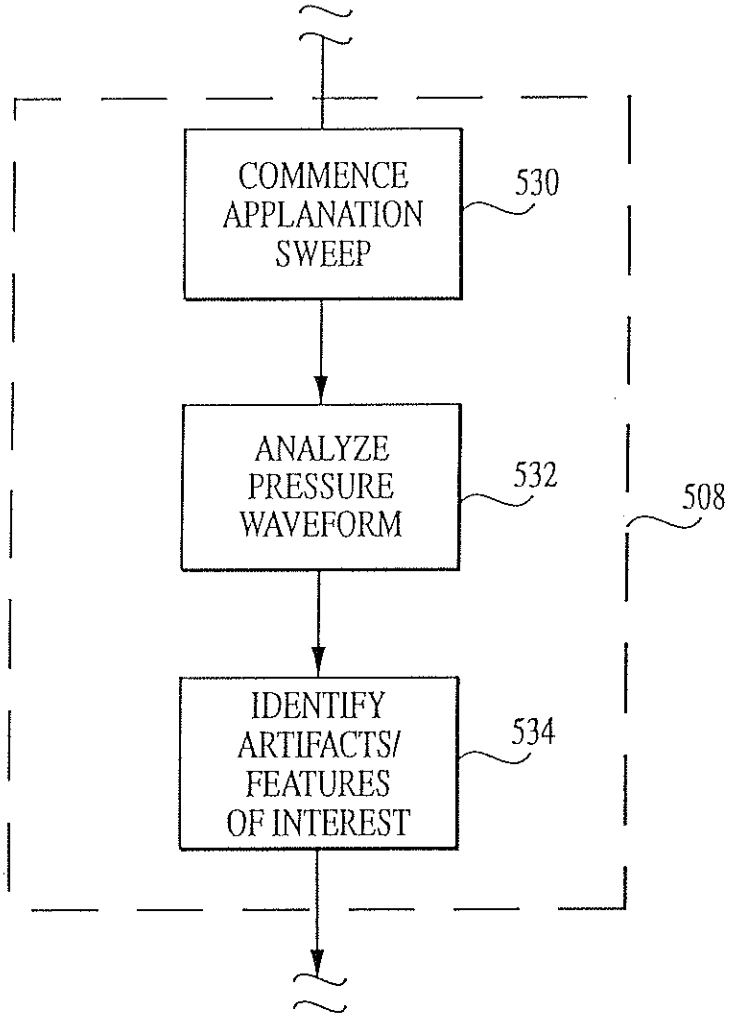


FIG. 5a

-4 AUG 2006

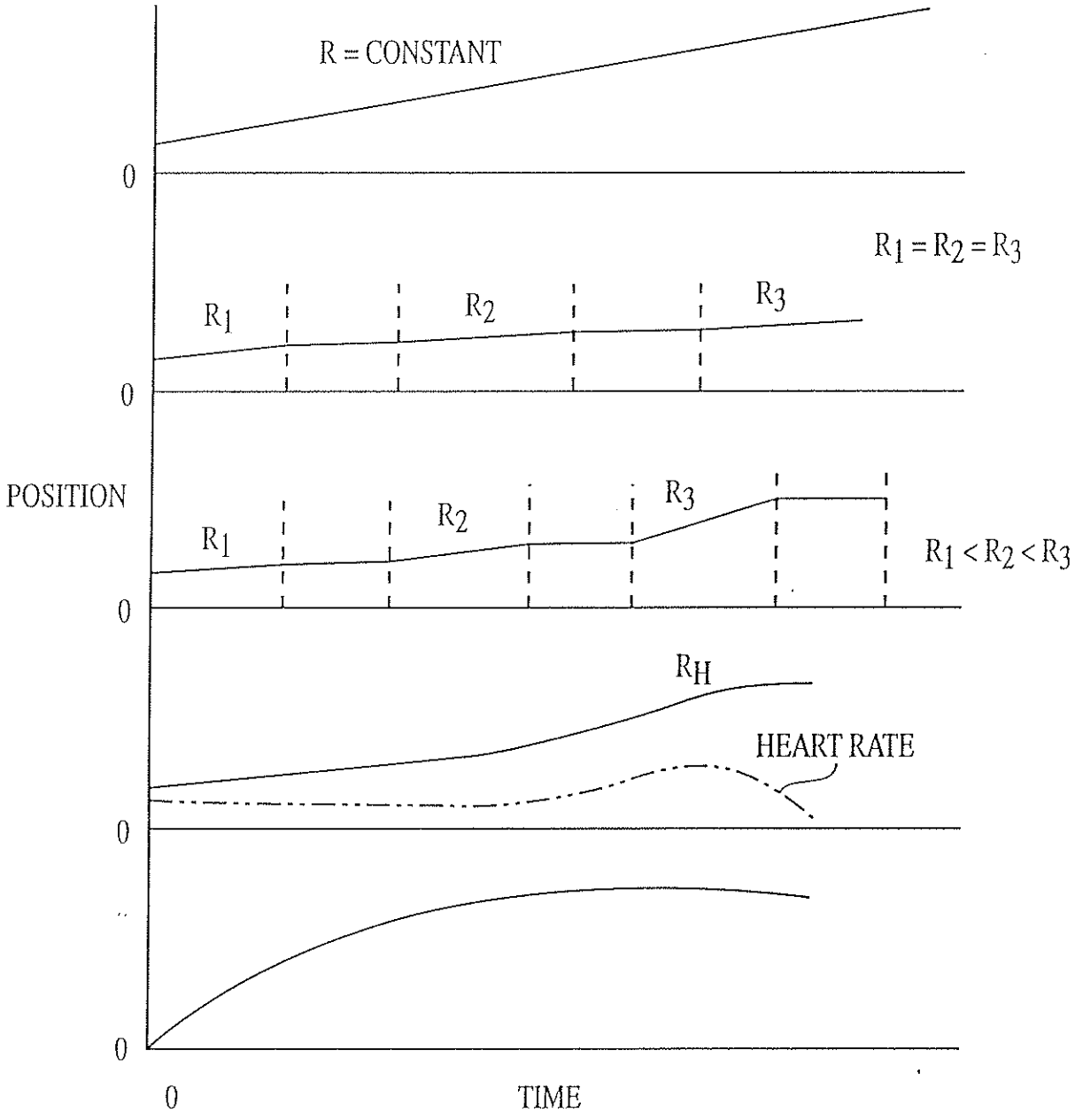


FIG. 5b

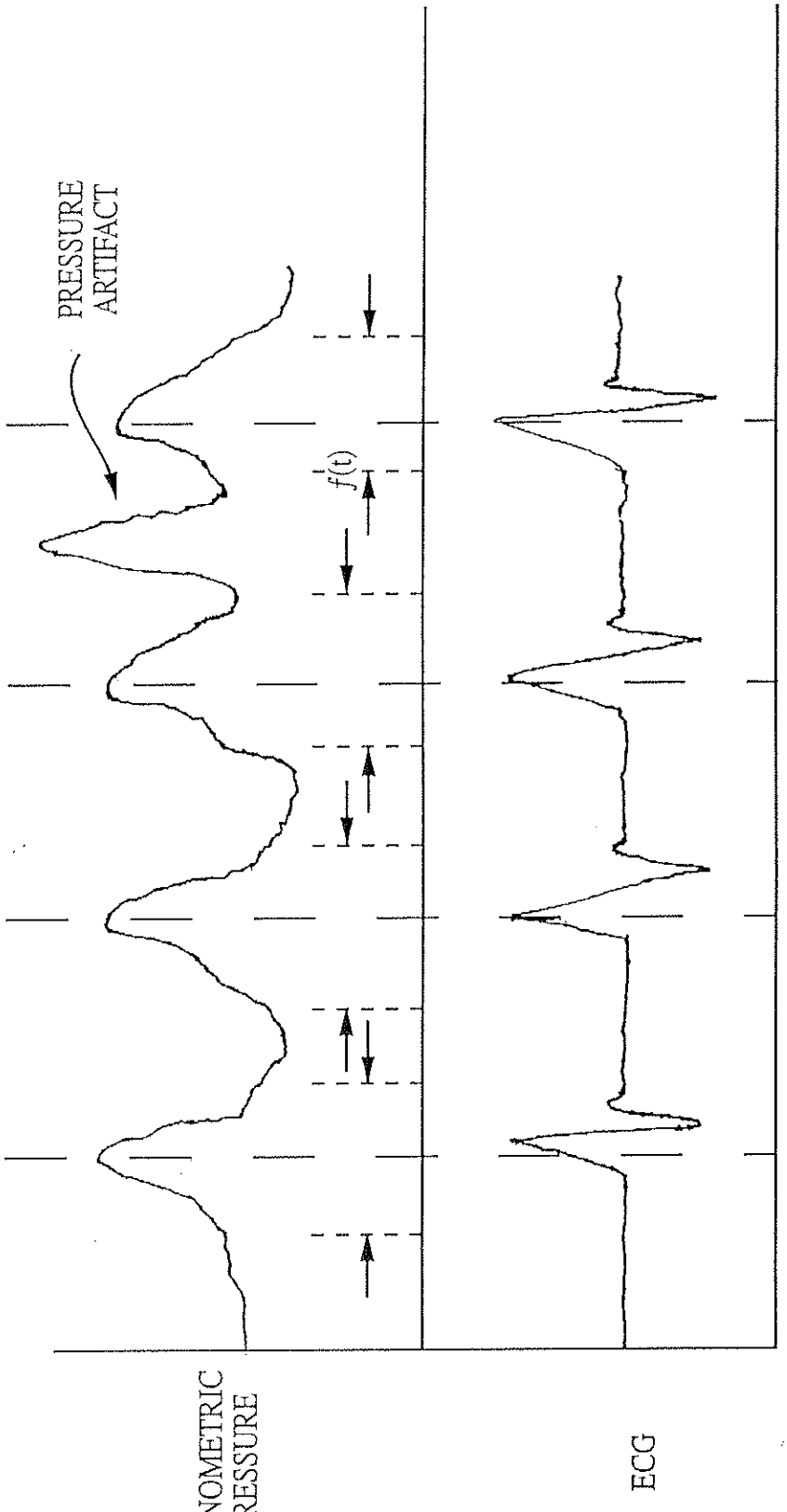


FIG. 5c

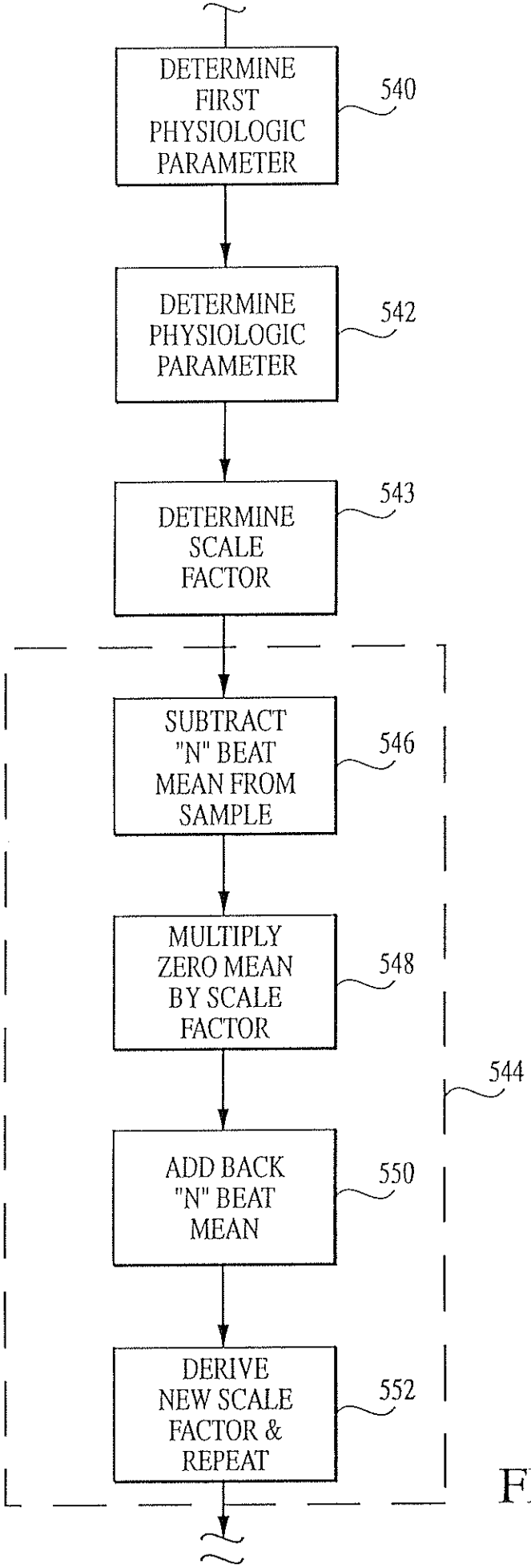

DETERMINE FIRST PHYSIOLOGIC PARAMETER
540
DETERMINE PHYSIOLOGIC PARAMETER
542
514
DETERMINE SCALE FACTOR
543
SUBTRACT "N" BEAT MEAN FROM SAMPLE
546
MULTIPLY ZERO MEAN BY SCALE FACTOR
548
544
ADD BACK "N" BEAT MEAN
550
DERIVE NEW SCALE FACTOR & REPEAT
552

FIG. 5d

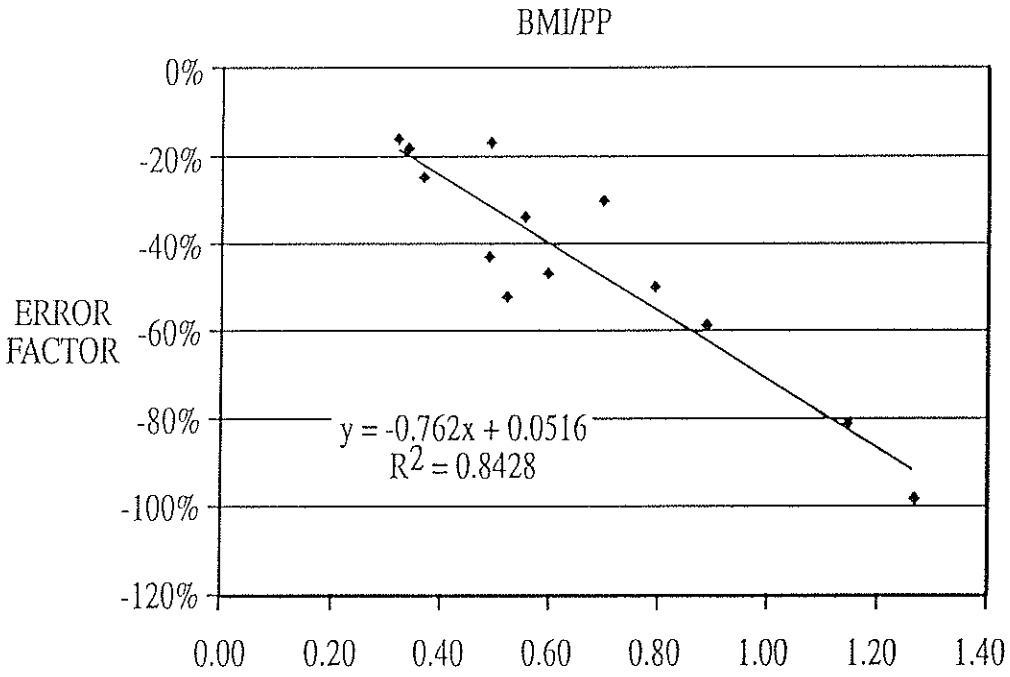

BMI/PP
0%
-20%
-40%
-60%
-80%
-100%
-120%
ERROR FACTOR
y = -0.762x + 0.0516
R2 = 0.8428
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40

FIG. 5e

24 AUG 2006

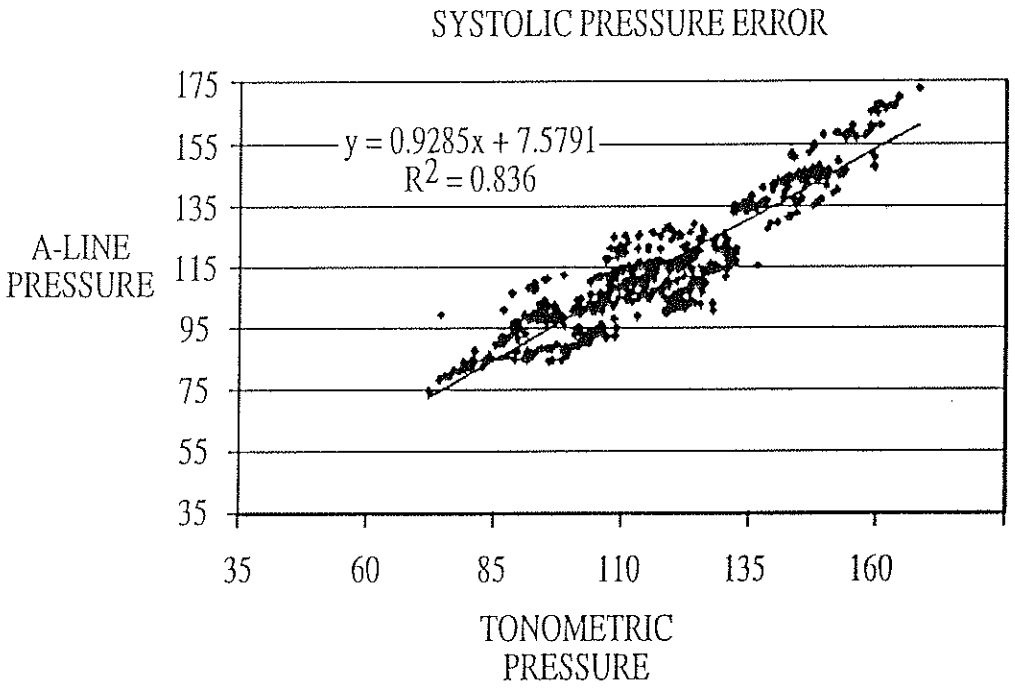


FIG. 5f

-4 AUG 2006

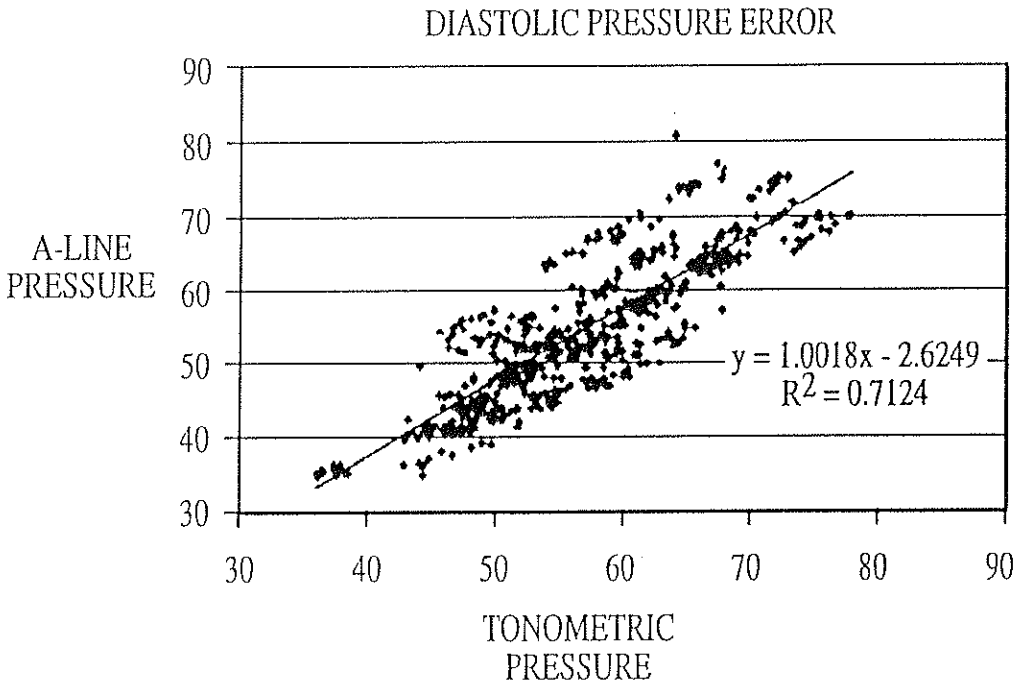


FIG. 5g

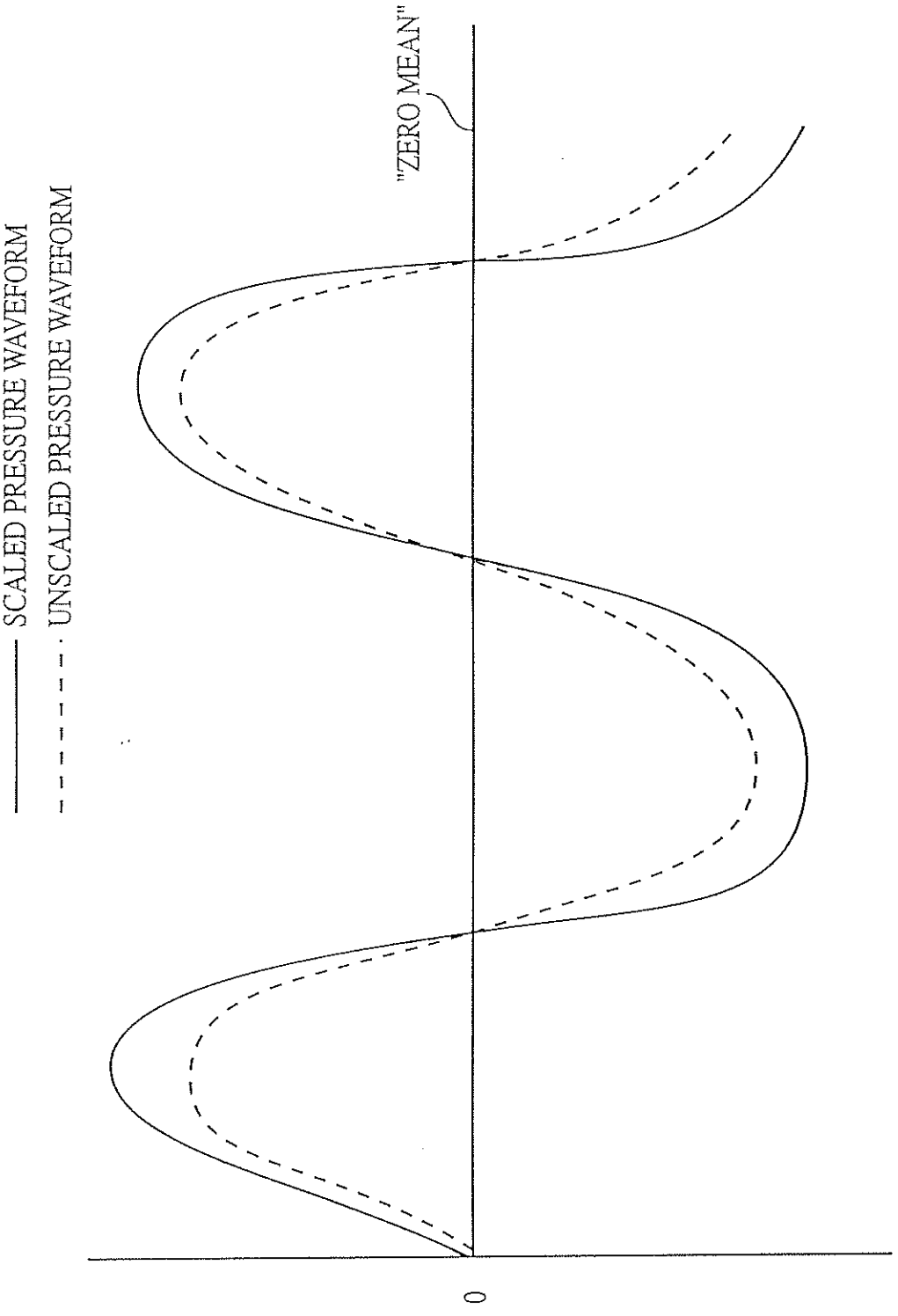

SCALED PRESSURE WAVEFORM
UNSCALED PRESSURE WAVEFORM
"ZERO MEAN"
0

FIG. 5h

04 AUG 2006

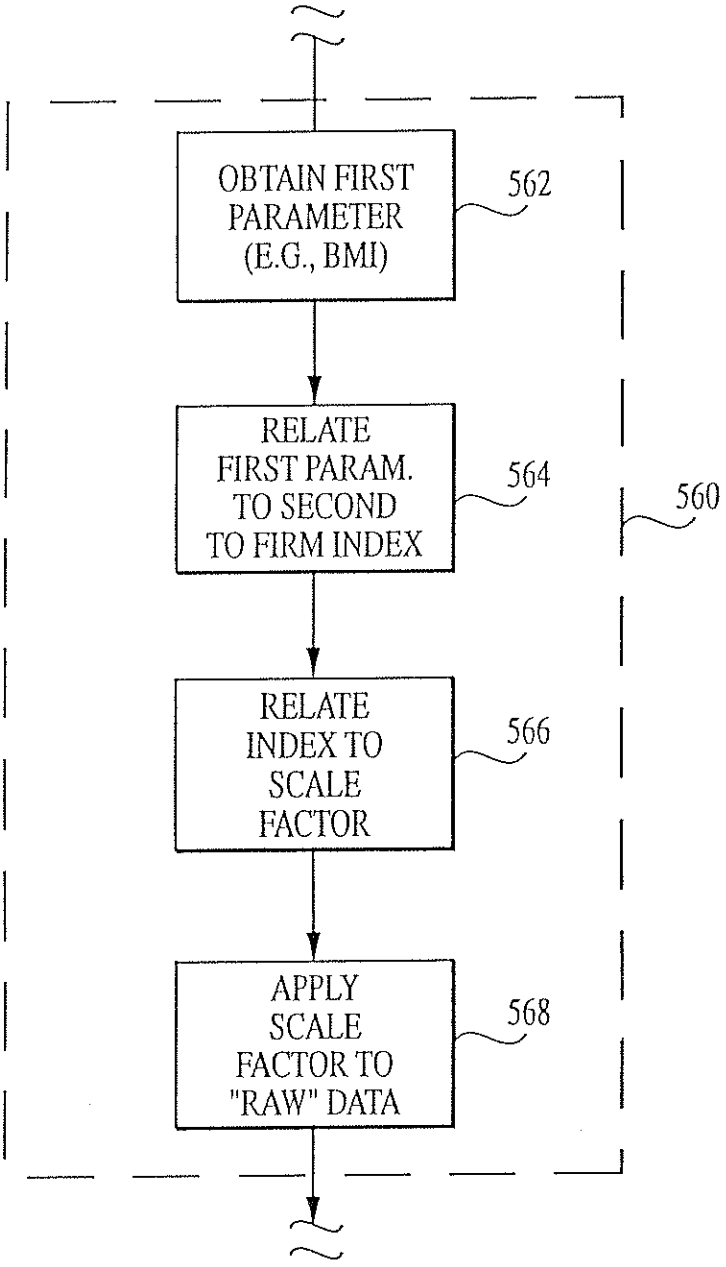
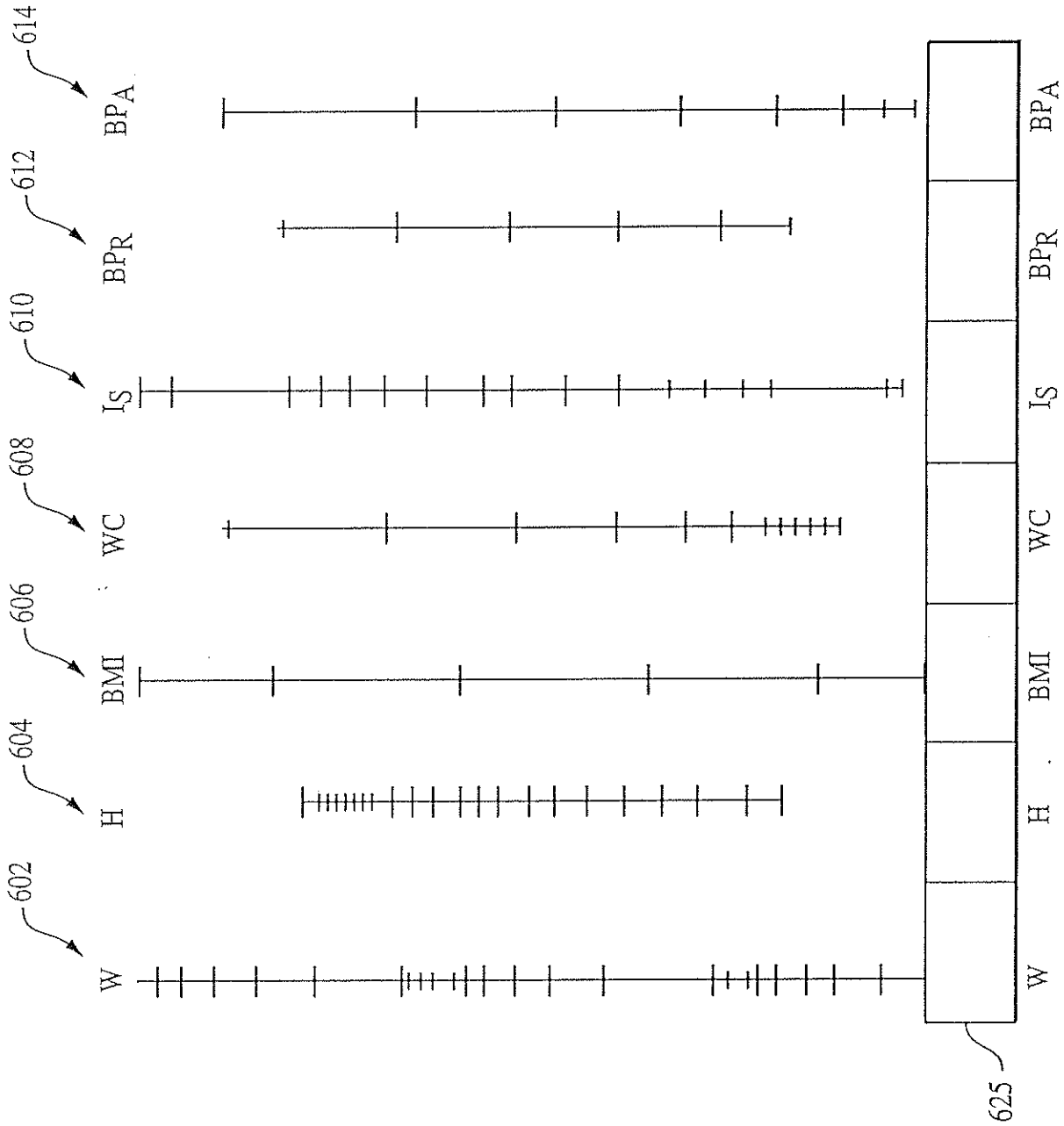


FIG. 5i

4 AUG 2006

FIG. 6



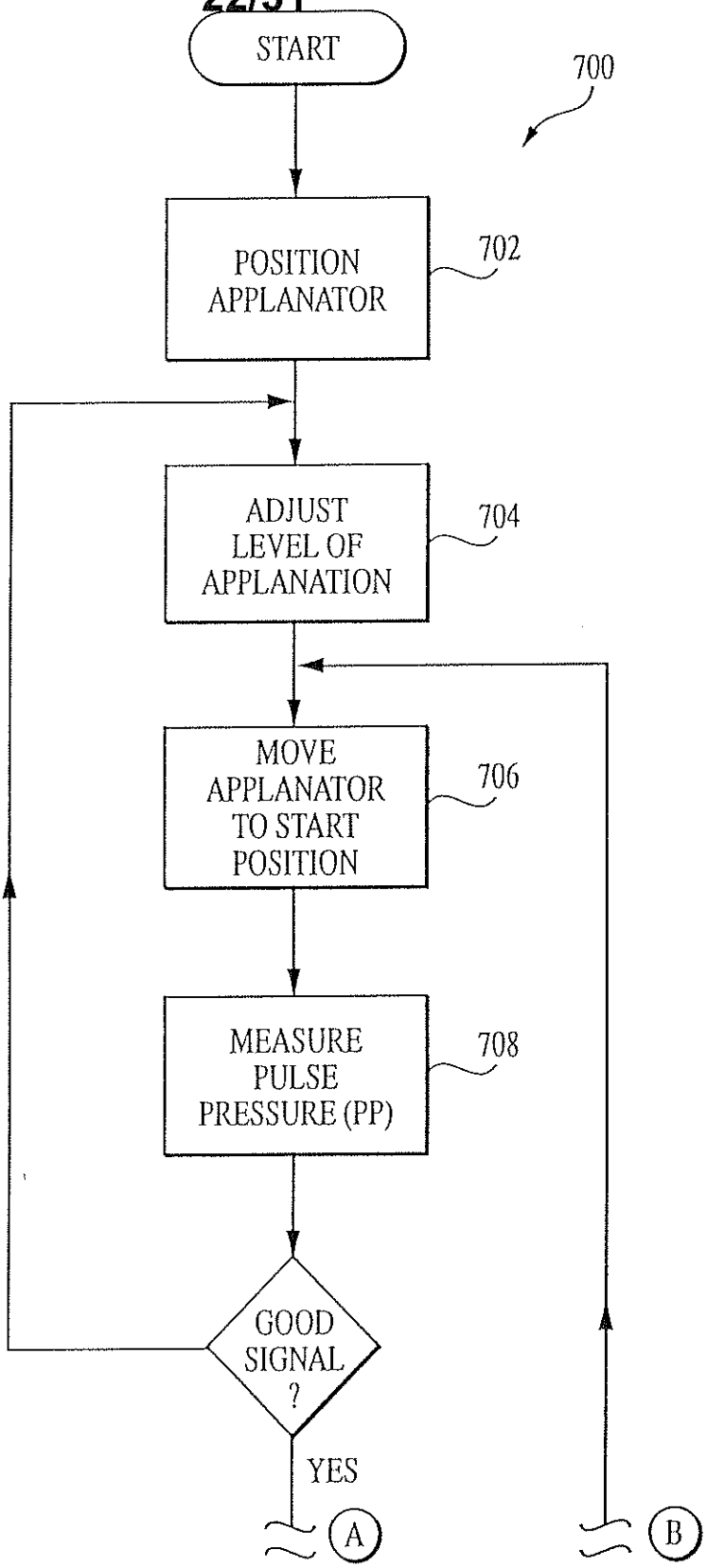

START
700
POSITION APPLANATOR
702
ADJUST LEVEL OF APPLANATION
704
MOVE APPLANATOR TO START POSITION
706
MEASURE PULSE PRESSURE (PP)
708
GOOD SIGNAL ?
YES
A
B

FIG. 7
(1 OF 2)

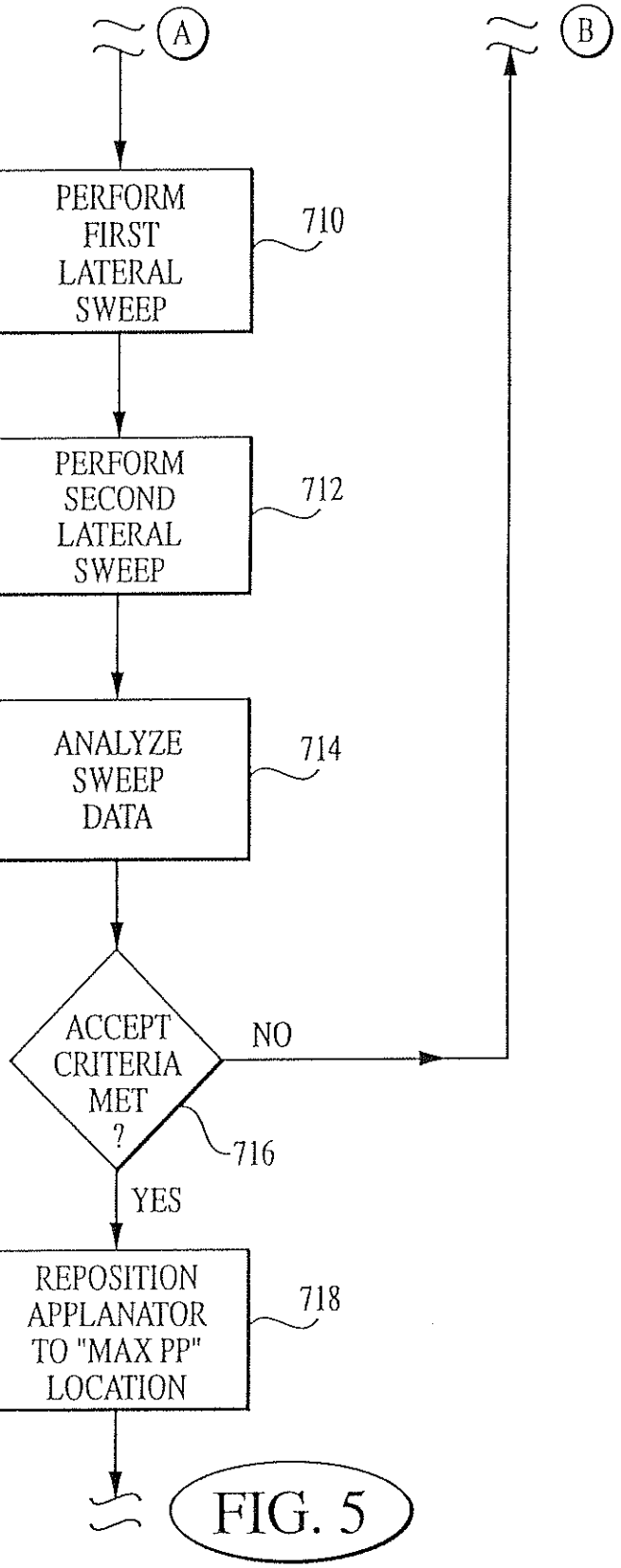


FIG. 5

FIG. 7
(2 OF 2)

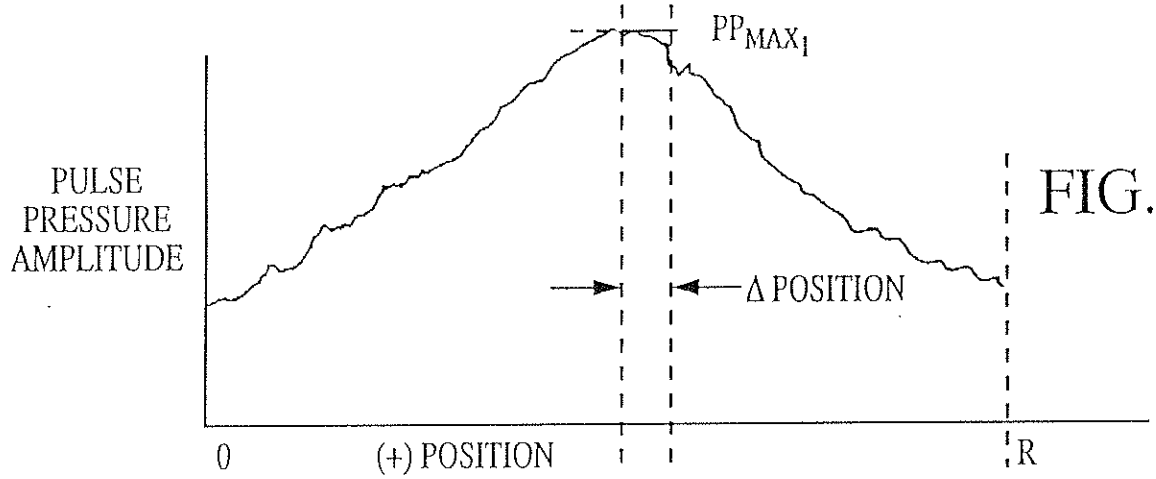


FIG. 7a

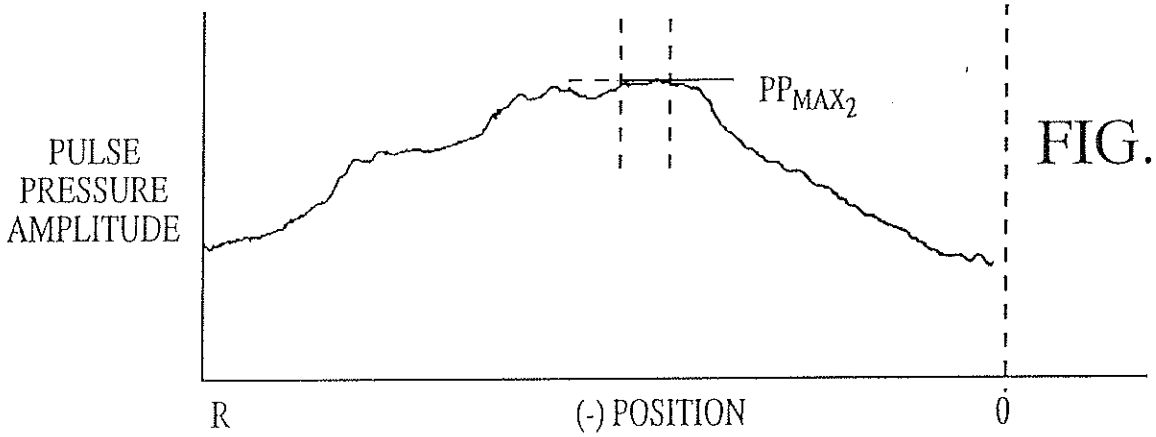


FIG. 7b

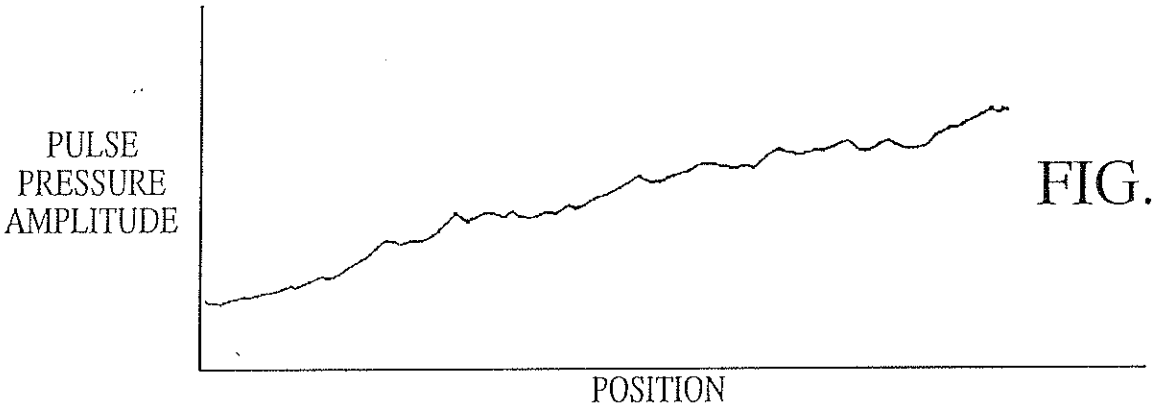


FIG. 7c

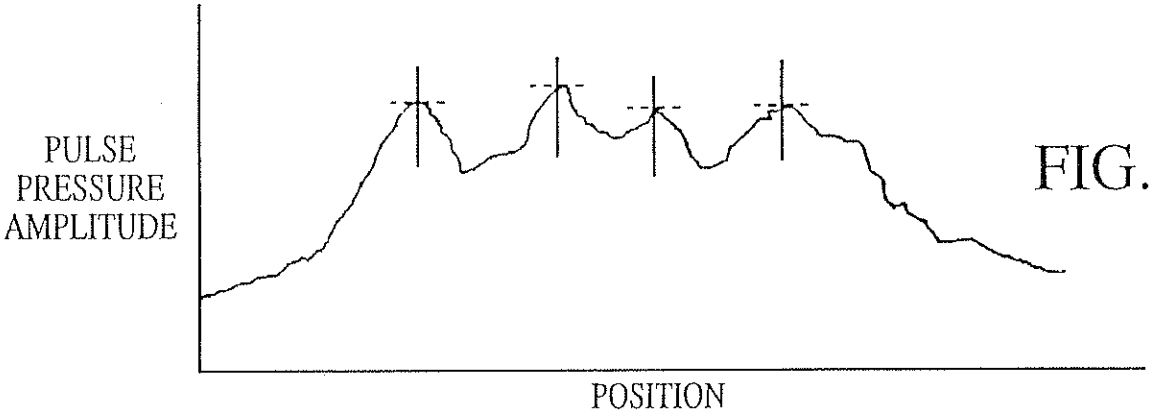


FIG. 7d

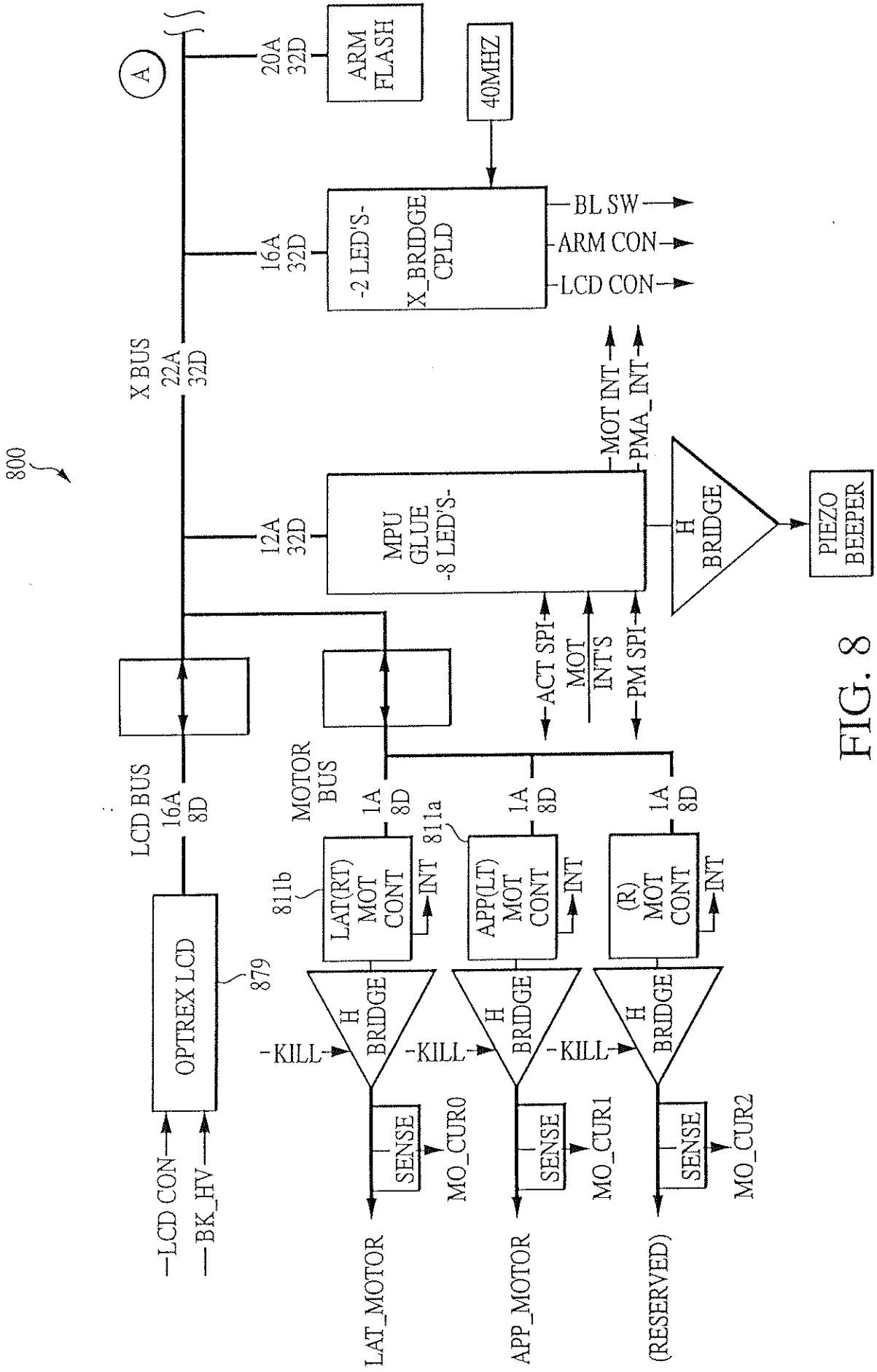

800
A
20A
32D
ARM
FLASH
40MHZ
16A
32D
-2 LED'S-
X_BRIDGE
CPLD
BL SW
ARM CON
LCD CON
X BUS
22A
32D
MOT INT
PMA_INT
12A
32D
MPU
GLUE
-8 LED'S-
H
BRIDGE
PIEZO
BEEPER
ACT SPI
MOT
INT'S
PM SPI
LCD BUS
16A
8D
MOTOR
BUS
1A
8D
811b
LAT(RT)
MOT
CONT
INT
811a
APP(LT)
MOT
CONT
(R)
MOT
CONT
OPTREX LCD
879
-KILL
H
BRIDGE
SENSE
MO_CUR0
MO_CUR1
MO_CUR2
LCD CON
BK_HV
LAT_MOTOR
APP_MOTOR
(RESERVED)

FIG. 8
(1 OF 4)

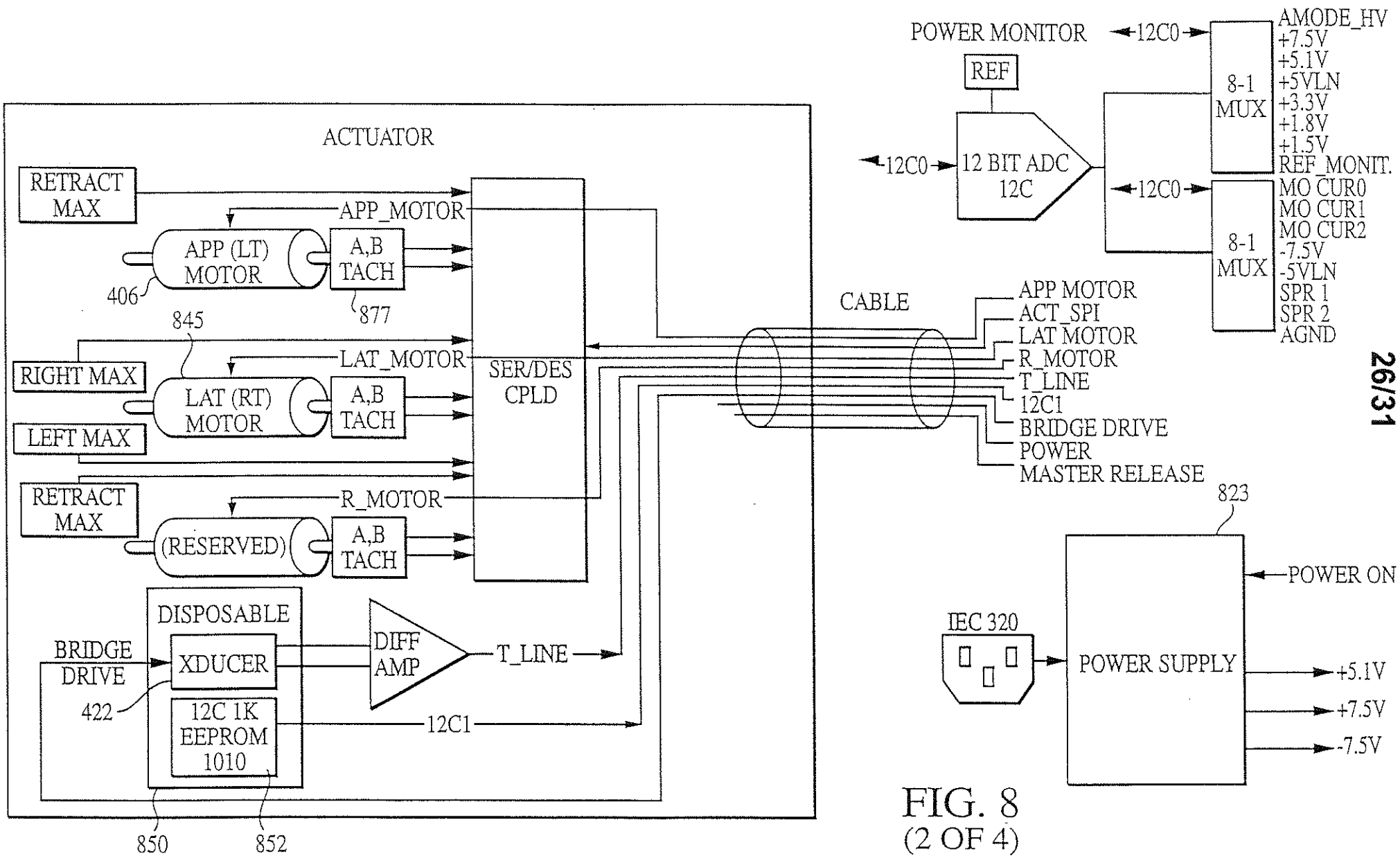


FIG. 8
(2 OF 4)

AUG 2006

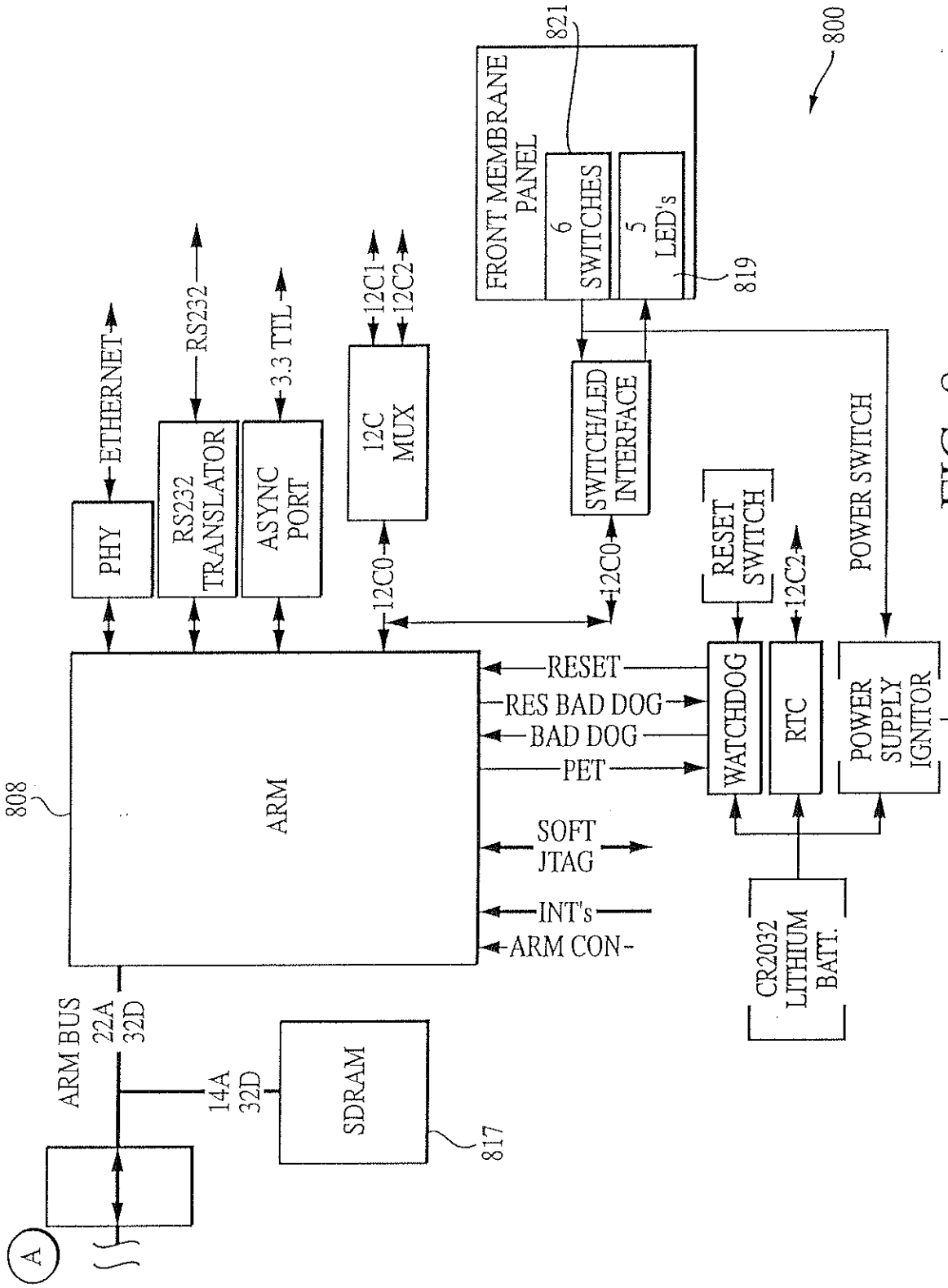

800
821
FRONT MEMBRANE PANEL
6 SWITCHES
5 LED's
819
ETHERNET
RS232
3.3 TTL
12C1
12C2
PHY
RS232 TRANSLATOR
ASYNC PORT
12C MUX
SWITCH/LED INTERFACE
RESET SWITCH
POWER SWITCH
12C0
12C0
12C2
RESET
RES BAD DOG
BAD DOG
PET
WATCHDOG
RTC
POWER SUPPLY IGNITOR
POWER ON
808
ARM
SOFT JTAG
INT's
ARM CON-
CR2032 LITHIUM BATT.
ARM BUS
22A
32D
14A
32D
SDRAM
817
A

FIG. 8
(3 OF 4)

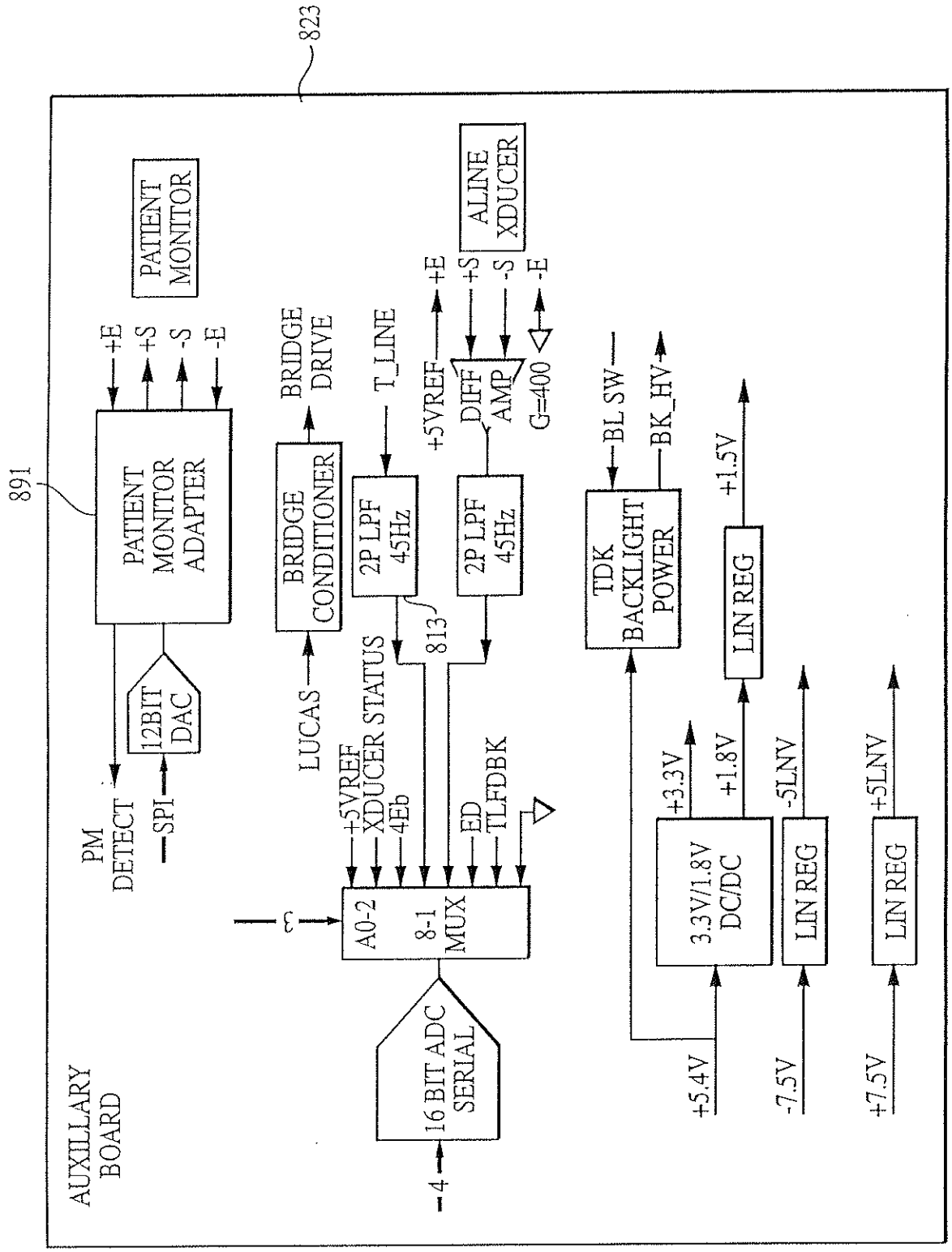

823
891
AUXILLARY BOARD
PATIENT MONITOR
PATIENT MONITOR ADAPTER
+E
+S
-S
-E
12BIT DAC
SPI
PM DETECT
BRIDGE DRIVE
BRIDGE CONDITIONER
LUCAS
T_LINE
2P LPF 45Hz
+5VREF
XDUCER STATUS
4Eb
813
+5VREF
DIFF AMP
G=400
ALINE XDUCER
2P LPF 45Hz
ED
TLFDBK
C
A0-2
8-1 MUX
16 BIT ADC SERIAL
-4
BL SW
BK_HV
TDK BACKLIGHT POWER
+3.3V
+1.8V
3.3V/1.8V DC/DC
+1.5V
LIN REG
-5LNV
LIN REG
+5LNV
LIN REG
+5.4V
-7.5V
+7.5V

FIG. 8
(4 OF 4)

04 AUG 2006

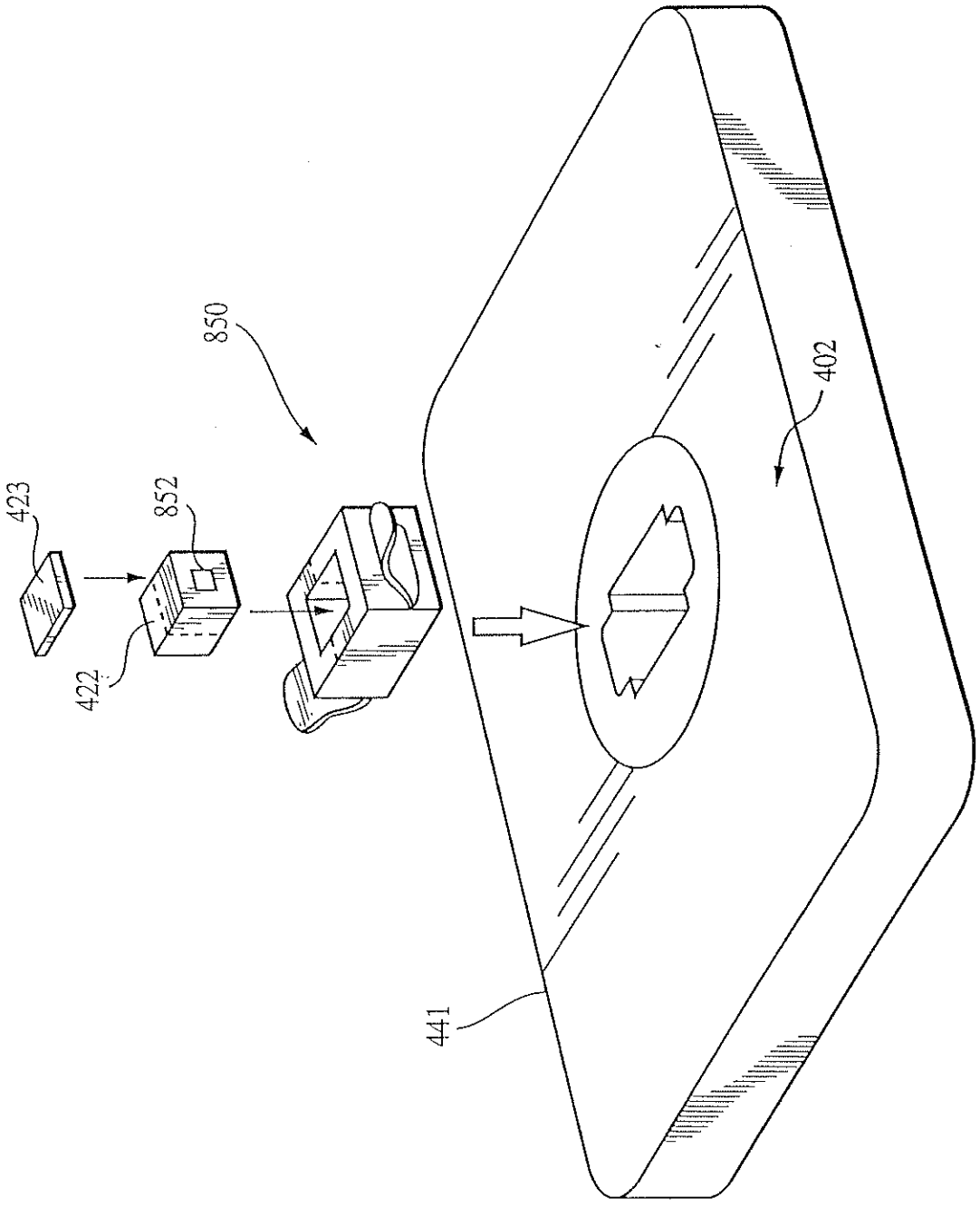


FIG. 8a

4 AUG 2006

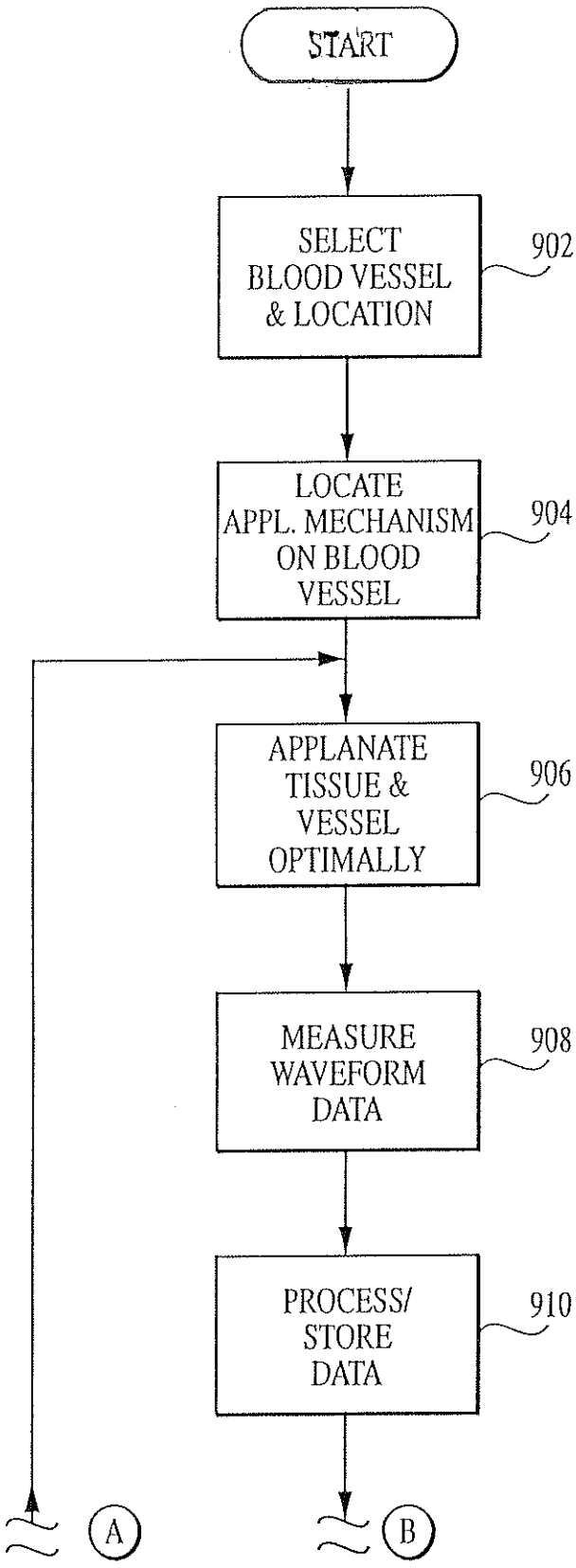


FIG. 9
(1 OF 2)

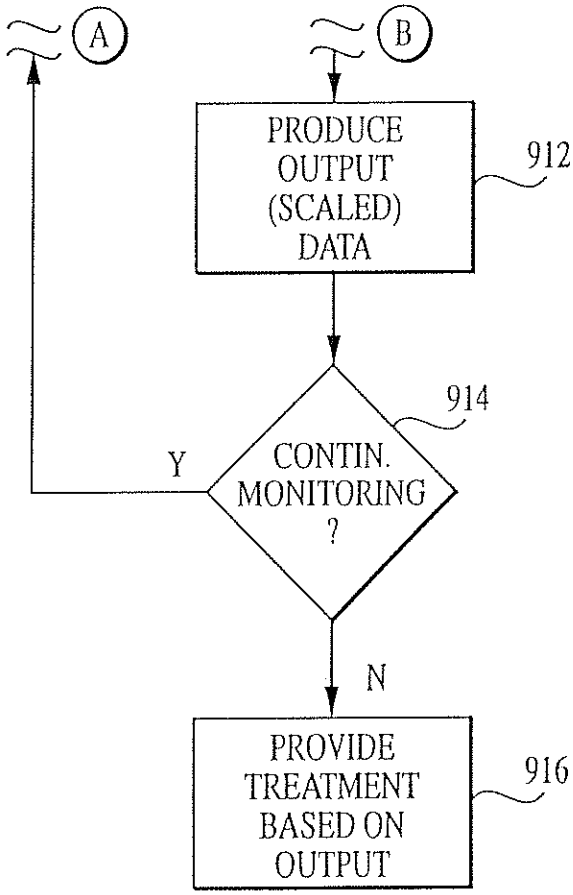

A
B
PRODUCE OUTPUT (SCALED) DATA
912
914
CONTIN. MONITORING ?
Y
N
PROVIDE TREATMENT BASED ON OUTPUT
916

FIG. 9
(2 OF 2)