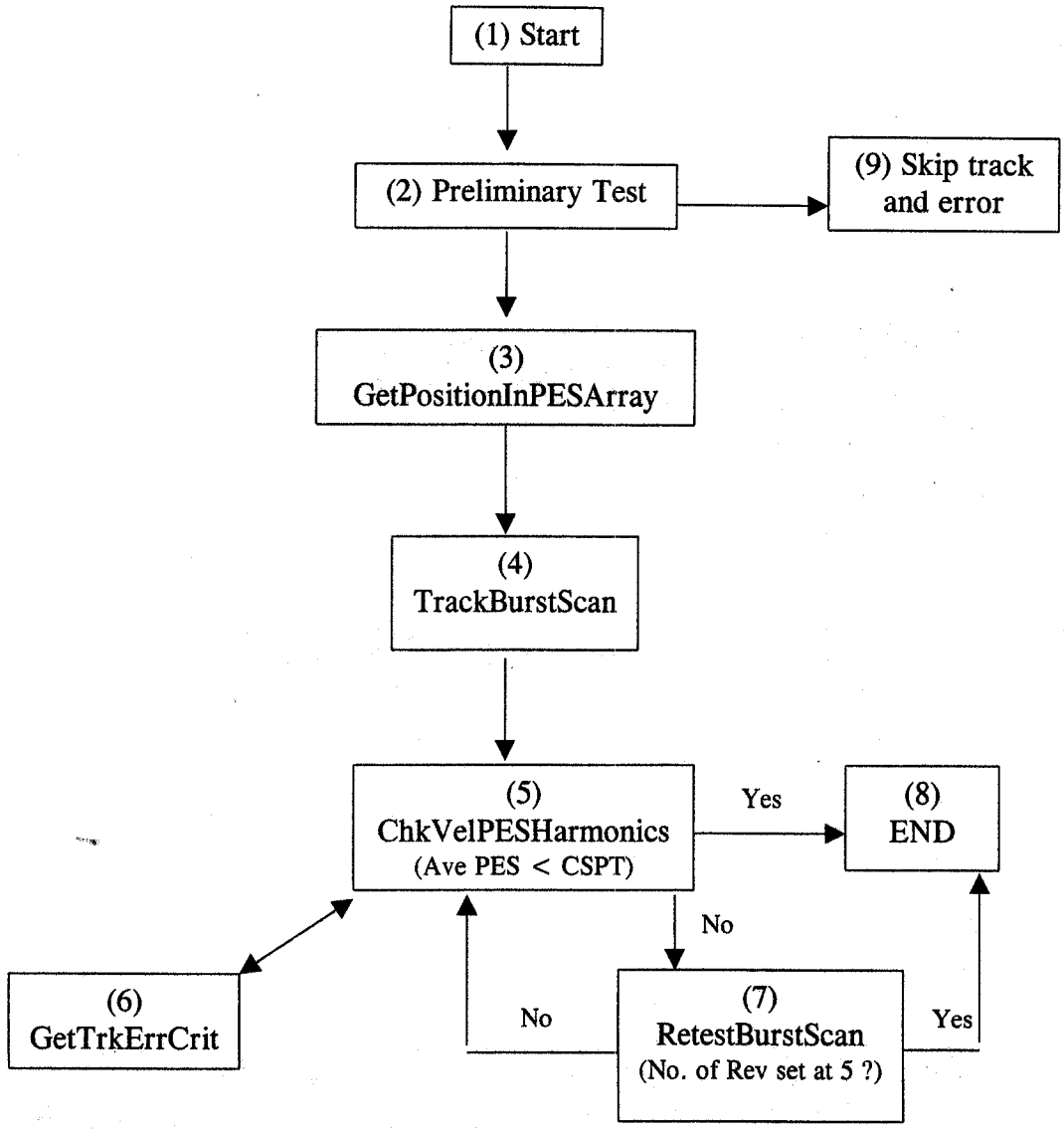

(1) Start
(2) Preliminary Test
(9) Skip track and error
(3) GetPositionInPESArray
(4) TrackBurstScan
(5) ChkVelPESHarmonics (Ave PES < CSPT)
Yes
(8) END
No
(6) GetTrkErrCrit
No
(7) RetestBurstScan (No. of Rev set at 5 ?)
Yes

FIG. 1

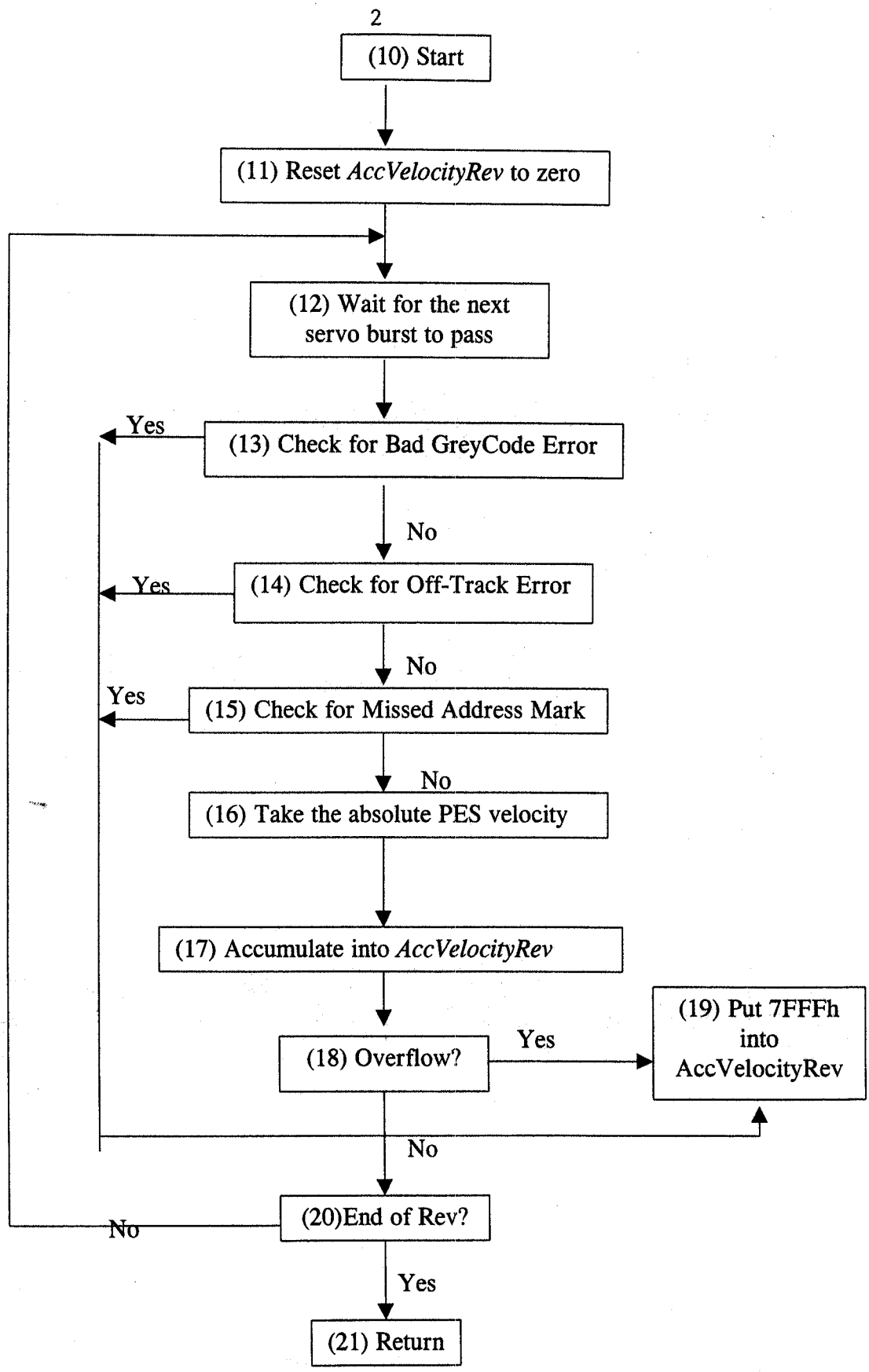

2
(10) Start
(11) Reset *AccVelocityRev* to zero
(12) Wait for the next servo burst to pass
Yes
(13) Check for Bad GreyCode Error
No
Yes
(14) Check for Off-Track Error
No
Yes
(15) Check for Missed Address Mark
No
(16) Take the absolute PES velocity
(17) Accumulate into *AccVelocityRev*
(18) Overflow?
Yes
(19) Put 7FFFh into AccVelocityRev
No
(20)End of Rev?
No
Yes
(21) Return

FIG. 2

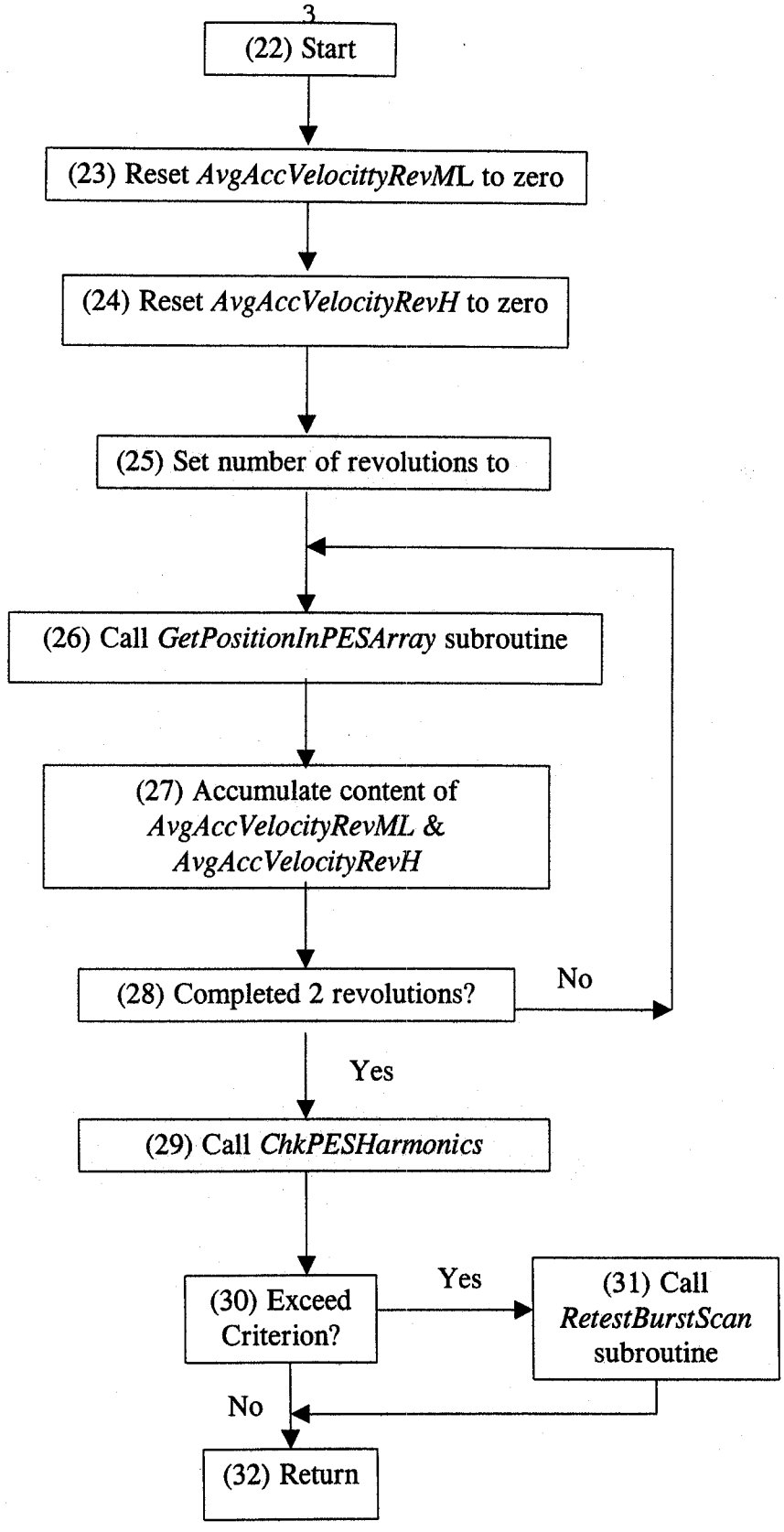

3
(22) Start
(23) Reset AvgAccVelocittyRevML to zero
(24) Reset AvgAccVelocityRevH to zero
(25) Set number of revolutions to
(26) Call GetPositionInPESArray subroutine
(27) Accumulate content of AvgAccVelocityRevML & AvgAccVelocityRevH
(28) Completed 2 revolutions?
No
Yes
(29) Call ChkPESHarmonics
(30) Exceed Criterion?
Yes
(31) Call RetestBurstScan subroutine
No
(32) Return

FIG. 3

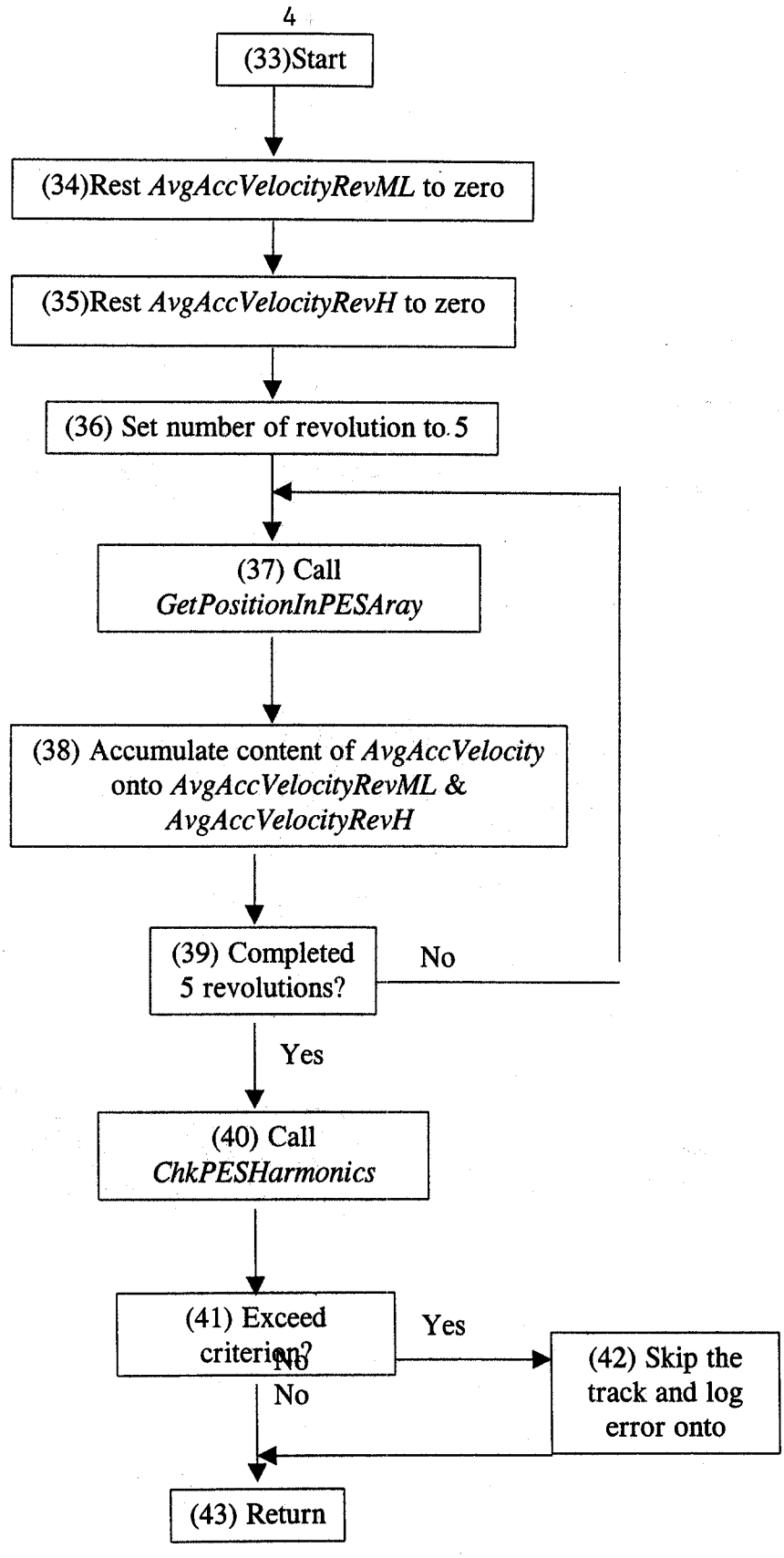

4
(33)Start
(34)Rest AvgAccVelocityRevML to zero
(35)Rest AvgAccVelocityRevH to zero
(36) Set number of revolution to 5
(37) Call GetPositionInPESAray
(38) Accumulate content of AvgAccVelocity onto AvgAccVelocityRevML & AvgAccVelocityRevH
(39) Completed 5 revolutions?
No
Yes
(40) Call ChkPESHarmonics
(41) Exceed criterion?
Yes
No
(42) Skip the track and log error onto
(43) Return

FIG. 4

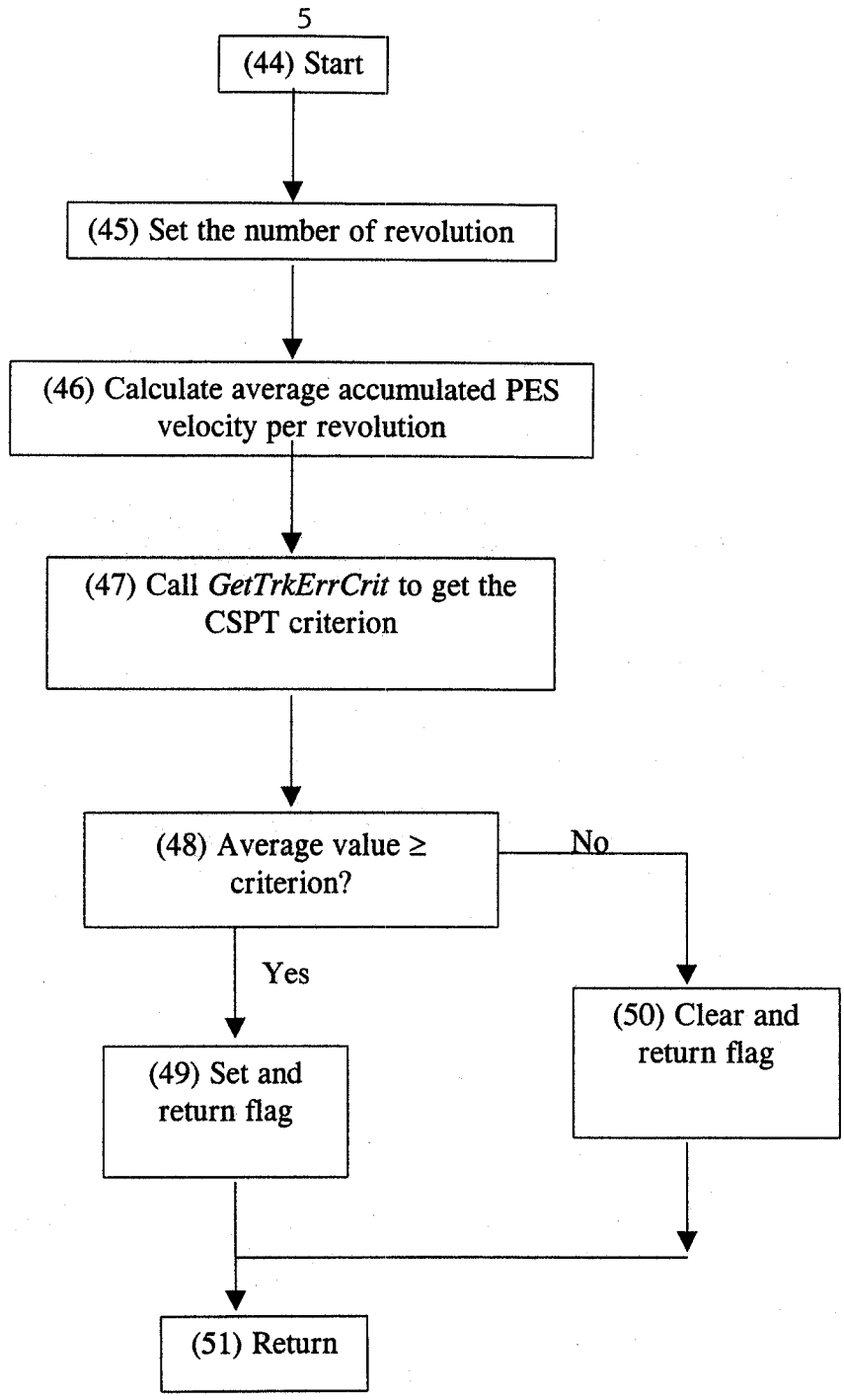

5
(44) Start
(45) Set the number of revolution
(46) Calculate average accumulated PES velocity per revolution
(47) Call *GetTrkErrCrit* to get the CSPT criterion
(48) Average value ≥ criterion?
No
Yes
(49) Set and return flag
(50) Clear and return flag
(51) Return

FIG. 5

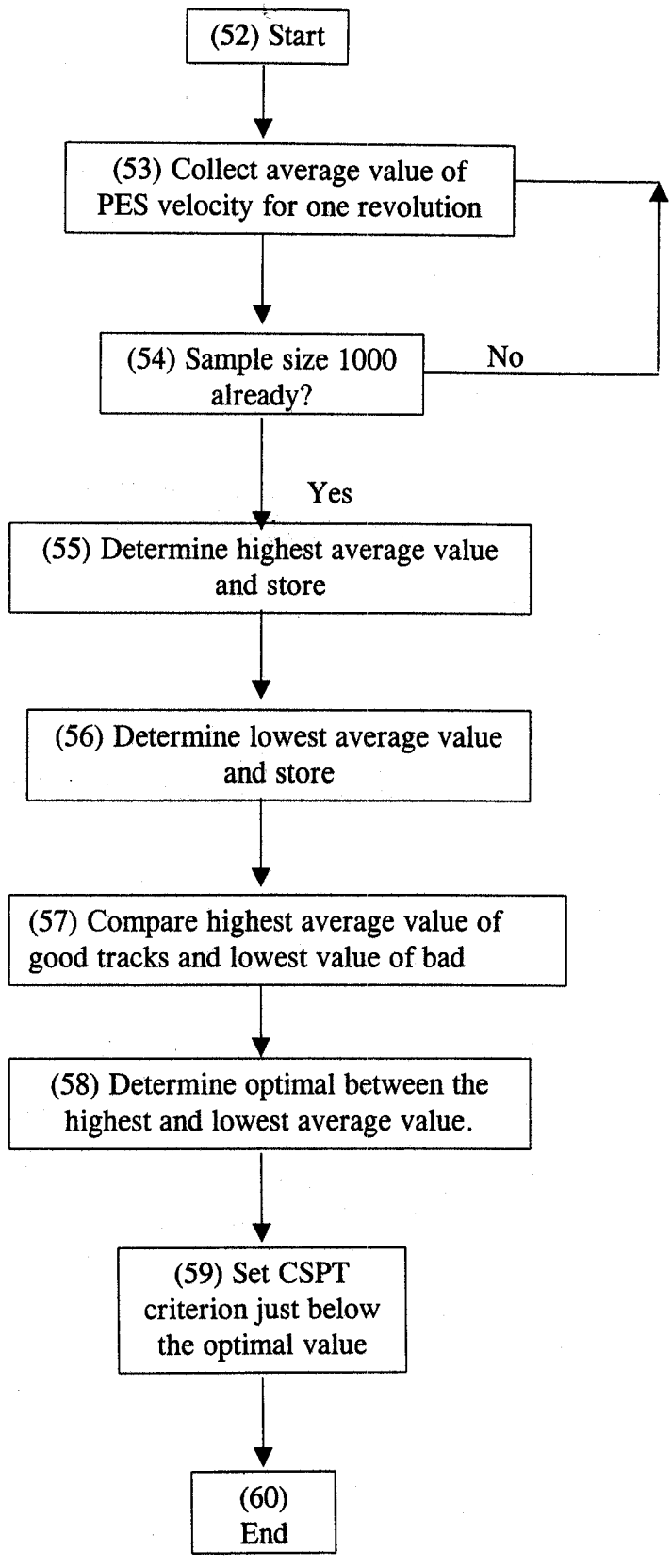

(52) Start
(53) Collect average value of PES velocity for one revolution
(54) Sample size 1000 already?
No
Yes
(55) Determine highest average value and store
(56) Determine lowest average value and store
(57) Compare highest average value of good tracks and lowest value of bad
(58) Determine optimal between the highest and lowest average value.
(59) Set CSPT criterion just below the optimal value
(60) End

FIG. 6

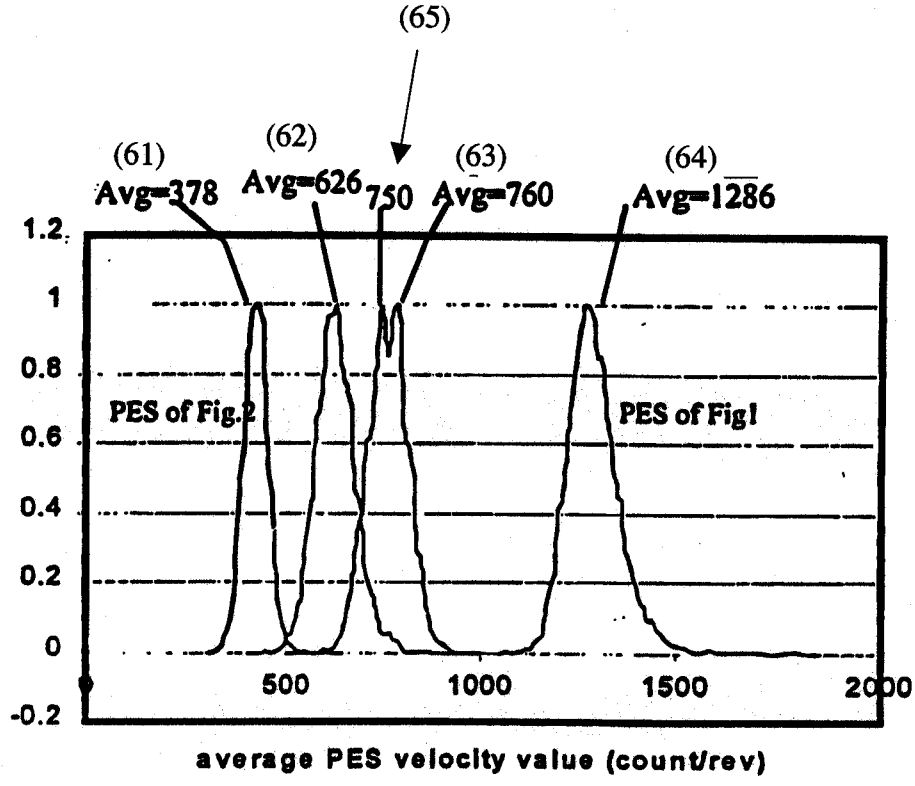

(65)
(61)
Avg=378
(62)
Avg=626
750
(63)
Avg=760
(64)
Avg=1286
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
PES of Fig.2
PES of Fig1
500
1000
1500
2000
average PES velocity value (count/rev)

FIG. 7

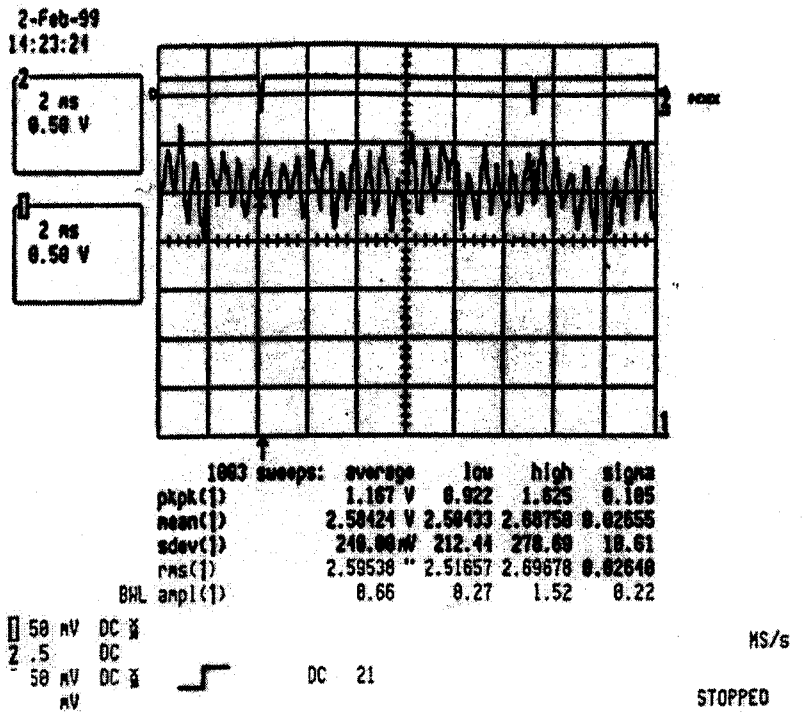

2-Feb-99
14:23:24
2 ns
0.50 V
2 ns
0.50 V
1003 sweeps: average low high signa
pkpk(1) 1.167 V 0.922 1.625 0.105
mean(1) 2.50424 V 2.50433 2.88758 0.02655
sdev(1) 240.00 mV 212.44 270.69 10.61
rms(1) 2.59538 " 2.51657 2.89678 0.02640
BWL ampl(1) 0.66 0.27 1.52 0.22
50 mV DC
.5 DC
50 mV DC
mV
DC 21
MS/s
STOPPED

FIG 8

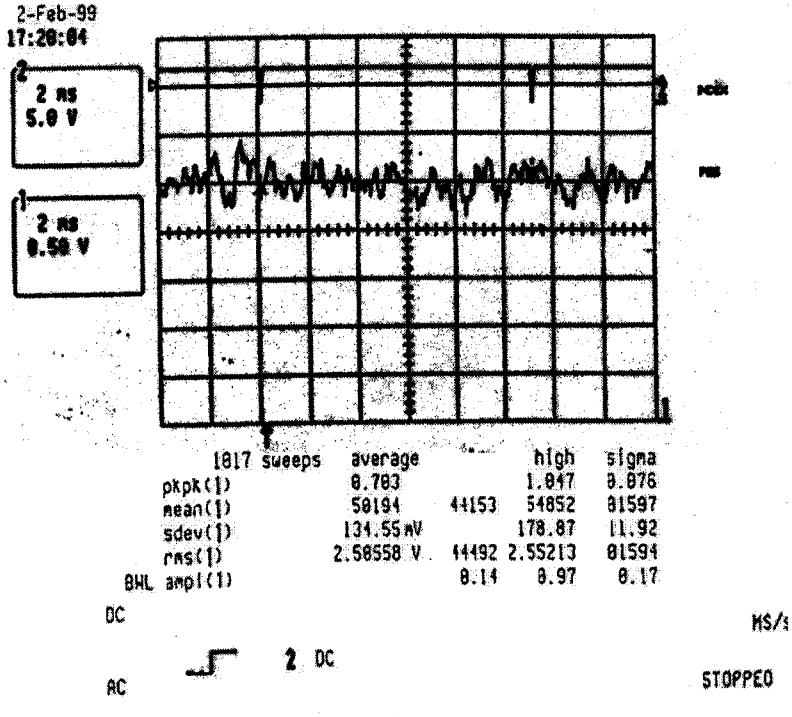

2-Feb-99
17:20:04
2 ns
5.0 V
2 ns
0.50 V
1017 sweeps average high signa
pkpk(1) 0.783 1.047 0.076
mean(1) 50194 44153 54852 01597
sdev(1) 134.55 mV 178.87 11.92
rms(1) 2.50558 V 44492 2.55213 01594
BWL ampl(1) 0.14 0.97 0.17
DC
AC
2 DC
MS/s
STOPPED

FIG. 9

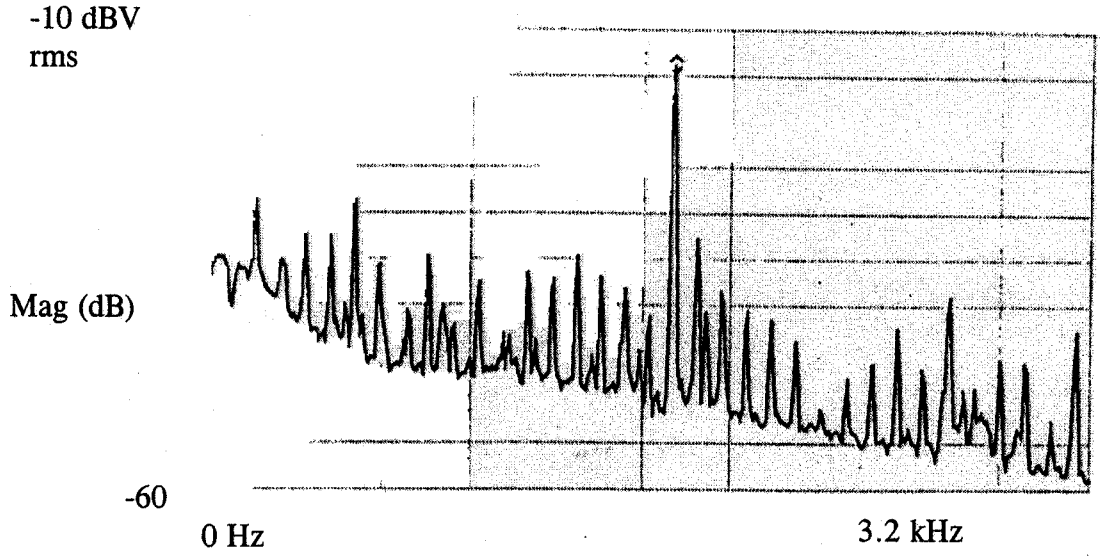

* X: 1.712 kHz
Y:-13.79 dBV
Pwr Spec I
-10 dBV
rms
Mag (dB)
-60
0 Hz
3.2 kHz

FIG. 10

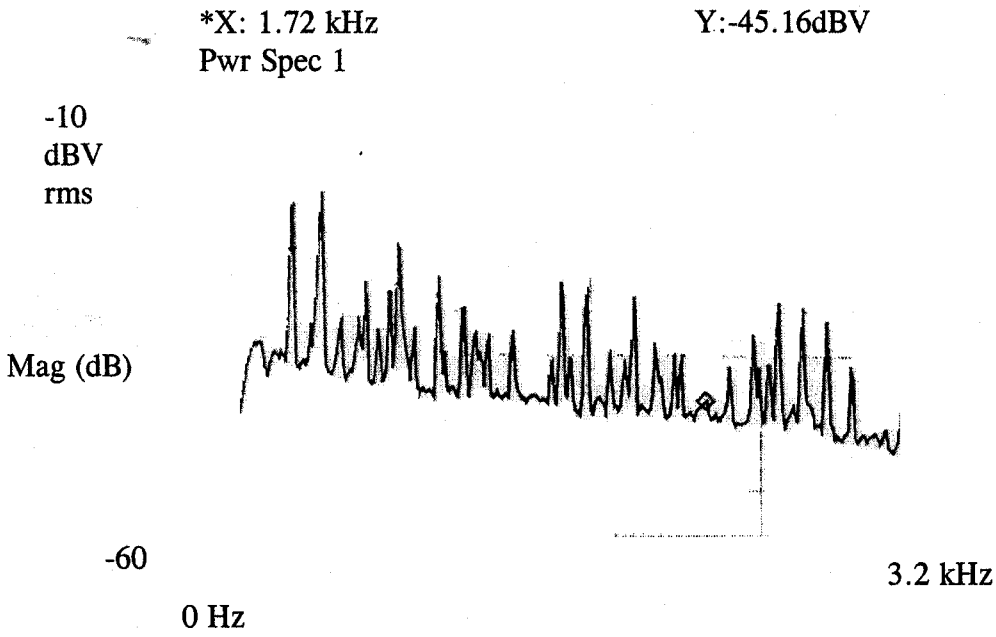

*X: 1.72 kHz
Y:-45.16dBV
Pwr Spec 1
-10
dBV
rms
Mag (dB)
-60
3.2 kHz
0 Hz

FIG. 11