

(19)
(12)

(KR)
(A)

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(22) 2002 06 26

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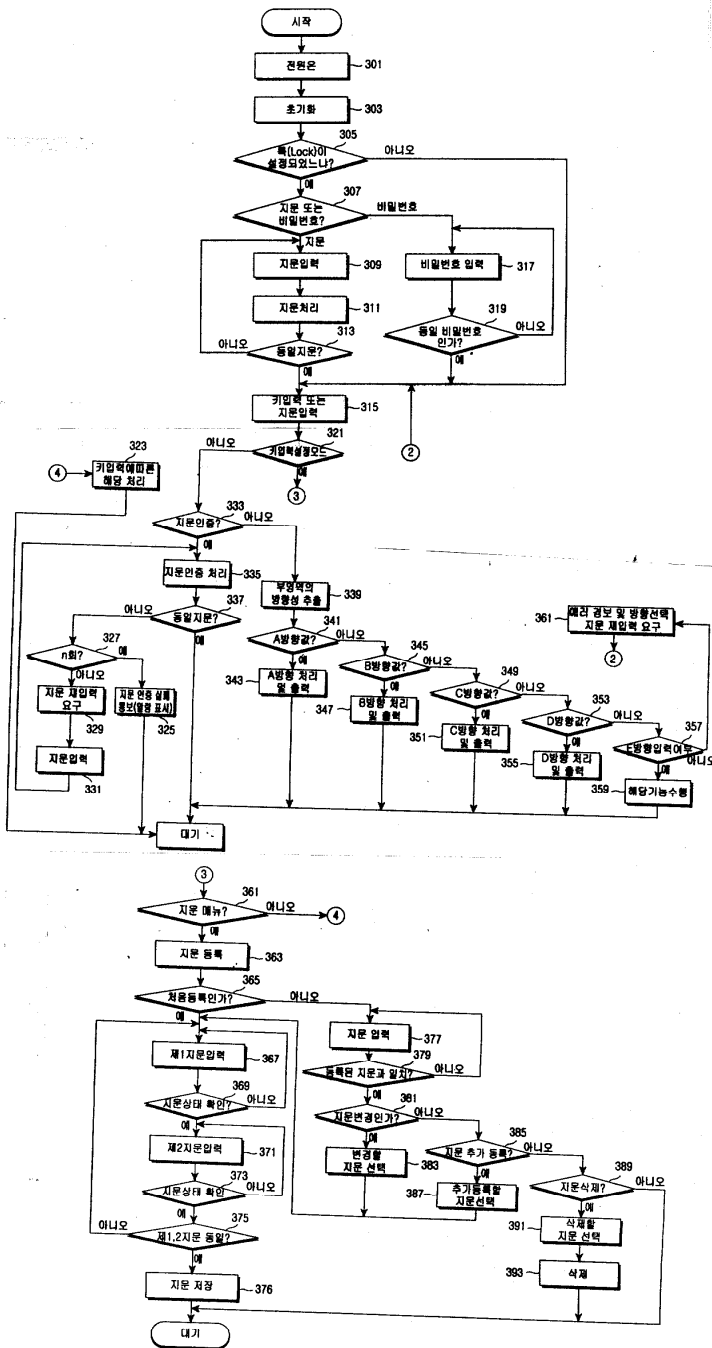
119-3 102 702

4가 107 1702

(74)
:

(54)

가 .
,
, 가 1 가 ,
,
가
가 .



1

2 1

3

4

5

6

7

8

(' ')

GPS(Global Position System)

가
가
1998-058342

가

(Navigation)

6,2

98,230 B1

가 가

가

가

1

, 가

가 ,

가

가

가

가 가 , 가
 1 ,
 10 가
 2 1 가 , (40) , (10)가
 가 , 2 ADC(20)
 가

3a ~ 3c

(Rock)
 1 ,

1 가 2 ,
 2 가 3 가 ,
 3 1 2 가
 4 ,
 가 4 가 가 5 가 가
 가
 6 .
 4 ,
 9 , 220*220 , , , 가 5*5 9

$$\text{Position}[i,j] = \sum_{x=i}^{i+10} \sum_{y=i}^{j+10} \text{pixel_value}[x,y] \mid_{i,j=10,110,200}$$

$$P_{UP} = \text{Position}[10,10] + \text{Position}[110,10] + \text{Position}[100,10]$$

$$P_{LIFT} = \text{Position}[10,10] + \text{Position}[10,110] + \text{Position}[10,200]$$

$$P_{DOWN} = \text{Position}[10,200] + \text{Position}[110,200] + \text{Position}[200,200]$$

$$P_{RIGHT} = \text{Position}[200,10] + \text{Position}[200,110] + \text{Position}[200,200]$$

(4a) , (4b) , (4c)

, (4d)

5

4

$$\text{Position}[i,j] = \sum_{x=1}^{i+20} \sum_{y=1}^{j+20} \text{pixel_value}[x,y] \mid i,j=20,40,60\dots220$$

(5a)

, (5d)

, (5b)

, (5c)

6

45 100

25

$$\text{Position}[\angle] = \sum_{i=24}^{124} \text{pixel_value}[\angle] \mid \angle=0,45,90\dots315$$

$$P_{UP} = \text{Position}[45] + \text{Position}[90] + \text{Position}[135]$$

$$P_{LIFT} = \text{Position}[135] + \text{Position}[180] + \text{Position}[225]$$

$$P_{DOWN} = \text{Position}[225] + \text{Position}[270] + \text{Position}[315]$$

$$P_{RIGHT} = \text{Position}[315] + \text{Position}[0] + \text{Position}[45]$$

(6a)

, (6d)

, (6b)

, (6c)

7

15 100

25

$$\text{Position}[\angle] = \sum_{i=24}^{124} \text{pixel_value}[\angle] \mid \angle=0,15,30\dots345$$

(7a)

, (7d)

, (7b)

, (7c)

8

25 x,y

가

x,y

4

, x,y

가

$$\text{Position}[x] = \sum_{i=0}^{220} \text{pixel_value}[x,i] \mid i=0,1,2\dots220$$

$$\text{Position}[y] = \sum_{i=0}^{220} \text{pixel_value}[x,i] \mid i=0,1,2\dots220$$

(8a)

, (8d)

, (8b)

, (8c)

1 8

(Locking)

1) _____

가 (301), 가 (303), CPU(50)
 (305) (307)

(307)

(307) (309) (311)
 (313)

2) _____

가 (315)
 (321) (361)

(321) 가 (363)
) (365) 가 (367),(369) (371),(373)
 2 가 (375) (376)

(377) 가 (379)
 (381)

가 (367) (376) (385) 가 (387)
 (385) 가 (389)
 (391) (393)

3) _____

(321) 가 (333) (335)
 (337) n (327)
),(329),(331) (325)

4) _____

(333) 가 (339)

(339) 4 8
) (343),(347),(351),(355) (341),(345),(349),(353) (A), (B), (C), (D)
 (E) (357) (361)

가 가

(57)

1.

가

2.

1

가

3.

가

가

4.

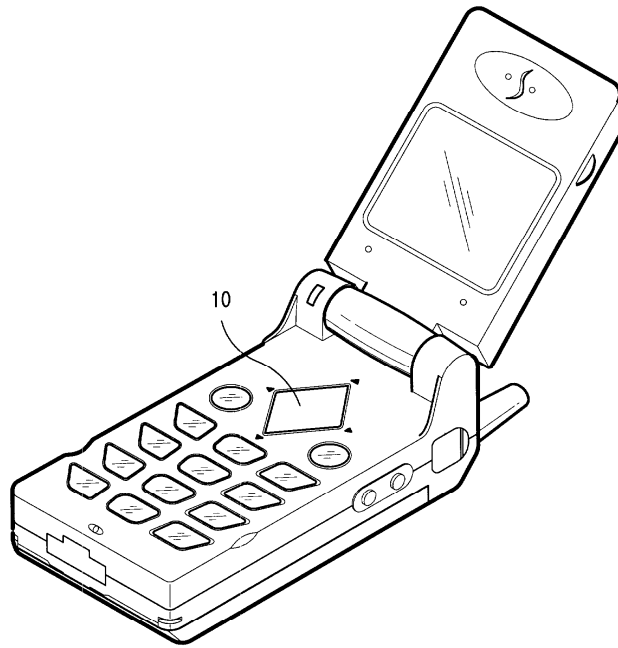
1

가

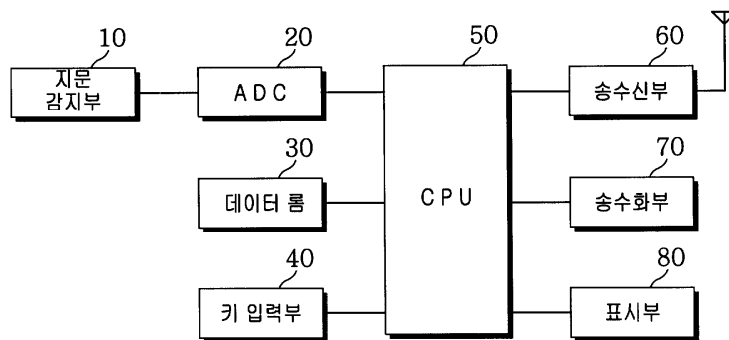
가

가

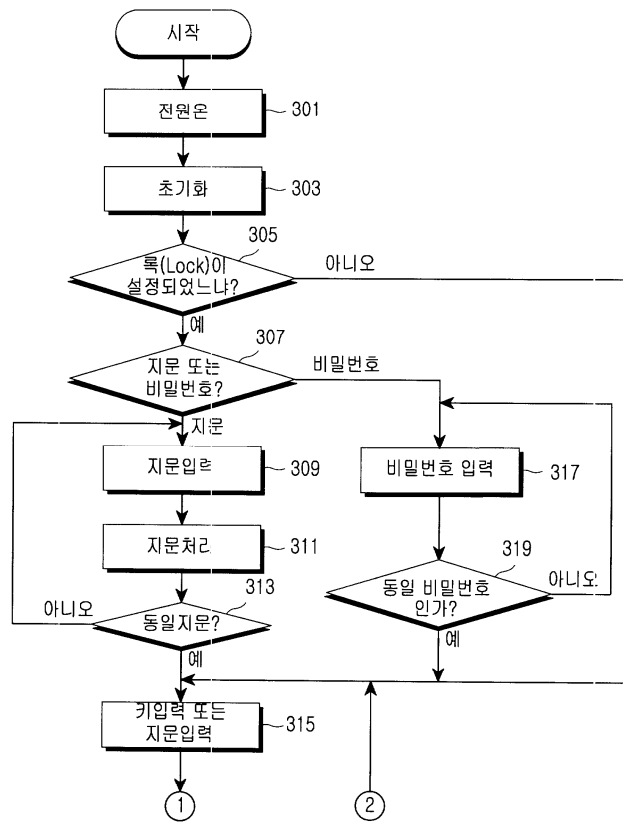
1



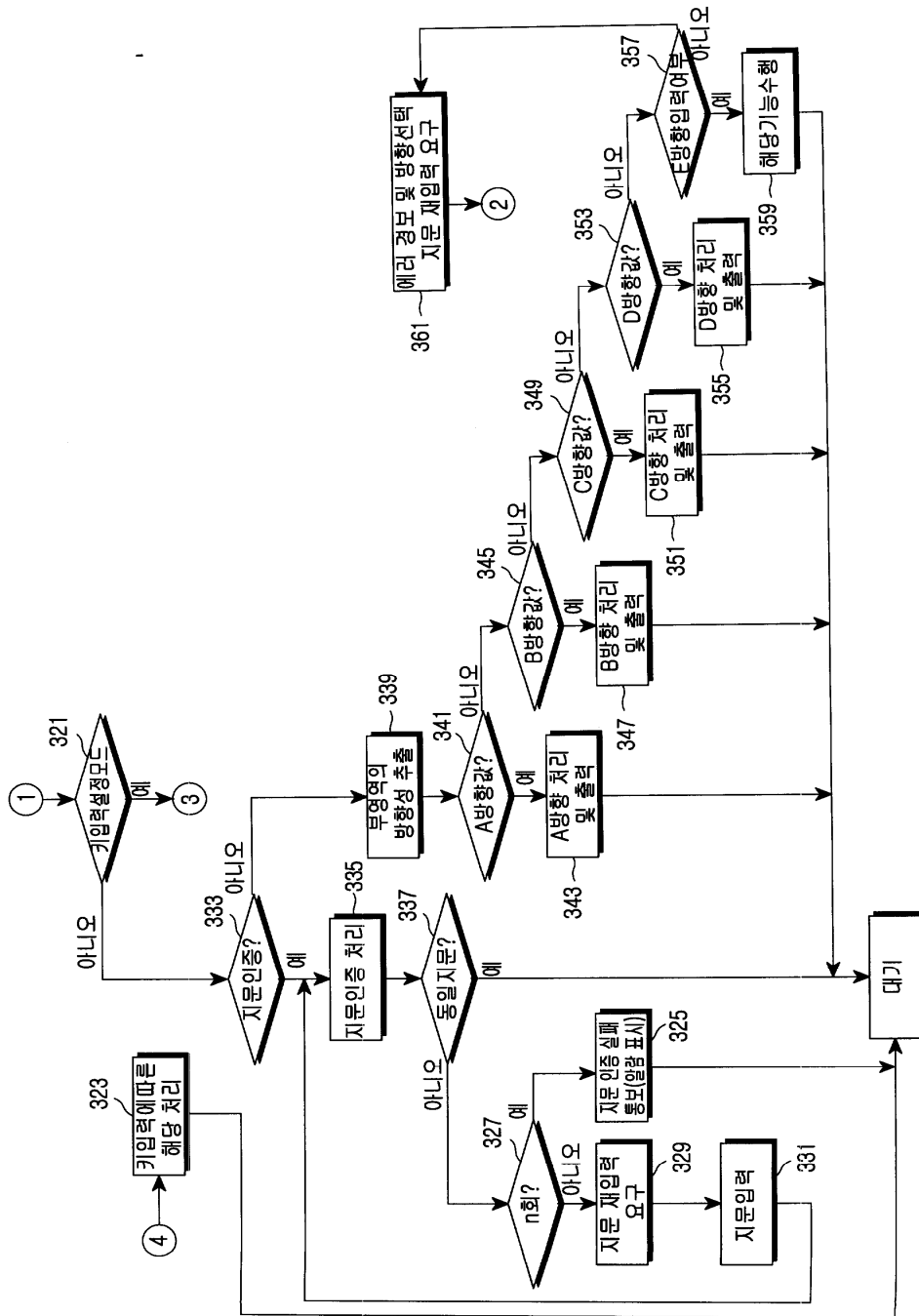
2



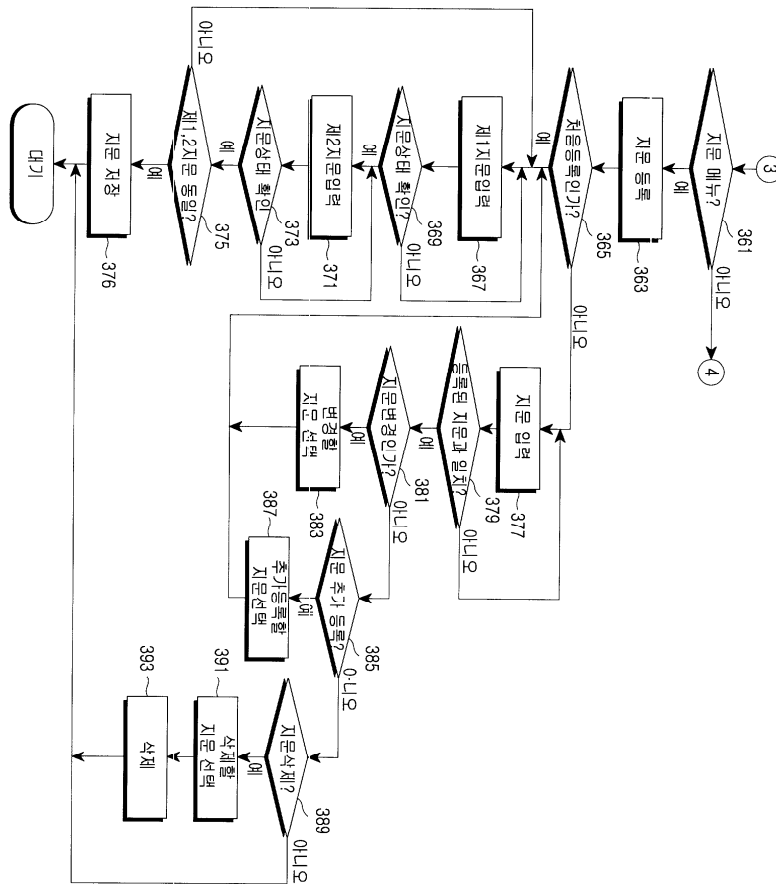
3a



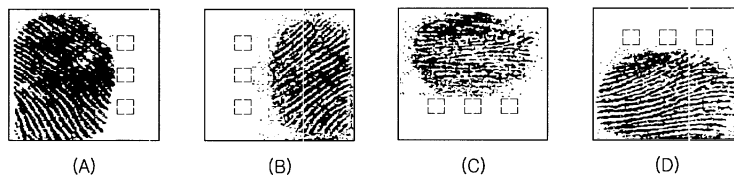
3b



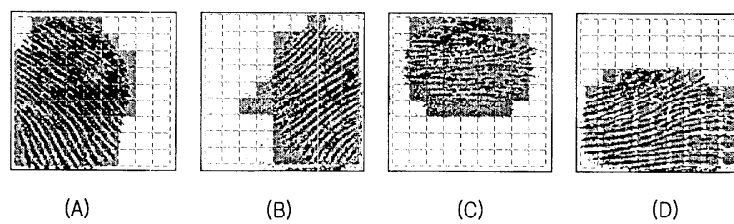
3c



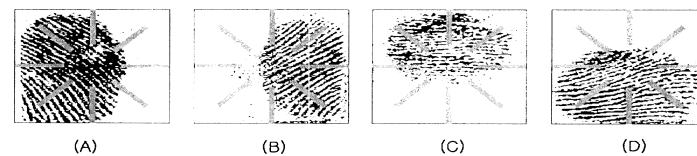
4a



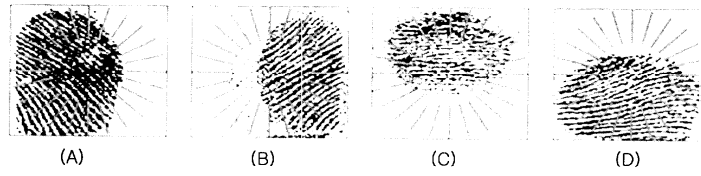
5



6



7



8

