

1	1
2	1
3a	
3b	
3c	
3d	(150)
4	
5	2
6	2

가

가

가

(100)
); (170); (140)
 (150); (CDS) (160)
 ;
 (120); (130); (110)
 (TRIAC) (TRIAC)
 (270); (210);
 (250); (220); (240)
 (280); (210) (220) (280)
); (230); (270) (210) (TRIAC) (280) ((240)
 TRIAC) 가 (280) (260)
 가 (280) 가
 1 1
 가 (11) (10), ON/OFF
 (13) (14),
 (12) CDS LED(15)
 LED(16)
 (11) ON (10) (11) OFF
 (13) (11) ON 3~4 (11)
 (11) 3~4 (11)
 OFF (14) ON/OFF LED (10)가 ON/
 LCD
 2 1 1
 3a (100) (110)
 3b (170) (120) 3
 c (150) (140) 3d
 (100),

(170), (110), 3~4
 (120), (140),
 (150), (CDS) (160)
 (130)
 (110) , 가 AC 220V AC 220V DC 5V DC 5
 V , AC 220V D3 3a
 C1 , AC 220V D1 5V (zener)
 DC 5V
 (120) , AC 3 , 3b
 3 3
 (150) (130)가 (120) 가
 [1] 가

[1]

제어 port	RB5	RB4	합성저항	전압공급(%)	비고
단계1	0	0	47,000Ω	0%	전등 OFF
단계2	0	1	27,149Ω	약30%	전등 약30% ON
단계3	1	0	22,149Ω	약70%	전등 약70% ON
단계4	1	1	298Ω	약100%	전등 약100% ON

, 1 (Gate) 4.6mA(=220V/47,000 Ω) ,
 (Gate turn on current) () , 2 4
 가 8.1mA, 9.96mA, 738mA () 가

[1] CDS
 RB5 RB4 , ON OFF

(140) , ON OFF CPU(PIC 16F84)
 , 3c DS1302 DS1302
 A1, RA2, RA3 DS1302 (130) , (130)가 R

(140) (130) (130)
 (140) (130) (120) /

(150) , (Touch sensor) (130)
 3d , 가 NE555
 30% , RB2 (130) 가
 70% , 100% , 4

(150) (KEY SW) CDS
가 가
1 (12)

ED (OFF) , CDS (RED) LED(15) LED (ON) (GREEN) LE
D(16) (ON)

(160) (CDS)(10)가
(130) CPU(PIC 16F84)

(130) , (150), (140), (160)
(120)

4

가 (130) (151) (152) (S302).
(150)

(304), (306) [1]
(120) (170) (308). ,
(120) 30% (170)

(170) 30% 가 (170) (17)
0) 가 (308). , 가

(302) (304), (130) (310) CDS
(312).

CDS 가 (304, 310), (130) CDS
(160) (312), LED LED (314).

CDS (CDS) 가 (1)
30) (130) (130) (120) (170)
(160) (PIC16F84) (LUX)

CDS (130) LED LED
(160)

가 (130) CDS 가 LED
LED (306). , CDS (160)

가 (CDS) 가 CDS
(130) (120) (170) (130)

CDS (130) LED LED

가 (280) 가 .

0) TRIAC (280) VR3 C5 , DIAC, VR3, C5 (27
 (R12, R13) (D3~D6) (60)
 (S3) (VR3) VR3 OFF (210)
 (220) VR3 가 , VR3 4
 (22) , VR3

(250) (D7~D10), (C6), (R14), (C7),
 (Z1)

(270) (250) TRIAC (260) 가 (280)
 가 (240) (S1 S2) (210)
 (220) 가 (240) (S3) (280)가 가
 가

가 가

가 가

(57)

1.

- (100);
- (170);
- (150);
- (140);
- (CDS) (160);
- (120);
- (130);

(

110)

2.

1

(150) ,

;

(140),

(160),

(150)

(130)

,

(130)가

(120)

,

(120)가

(100)

3.

1

2

,

(130) ,

(150)

(140),

(160),

(150)

(120)

(170)

4.

,

(TRIAC)

(TRIAC)

(270);

(250);

(210);

(220);

(280);

(240);

(210)

(220)

(230);

(270)

(TRIAC)

(280)

(210)

가

(TRIAC)

가

(280)

(280)가

(260)

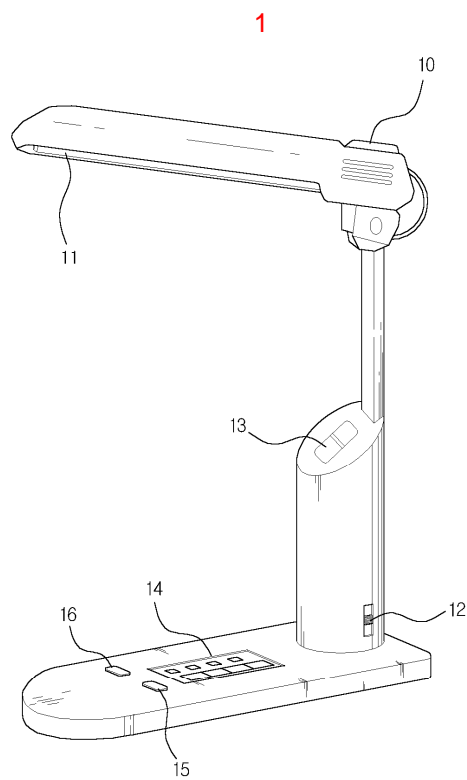
5.

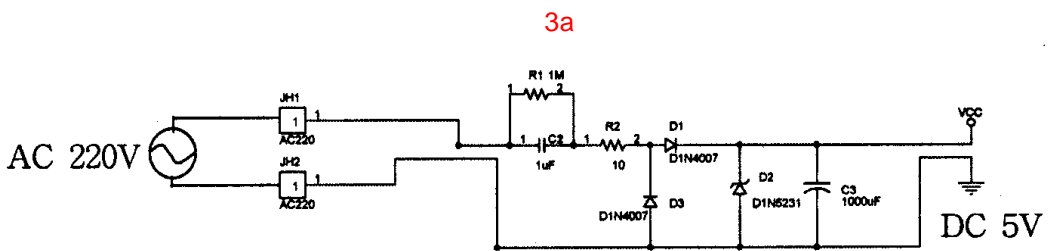
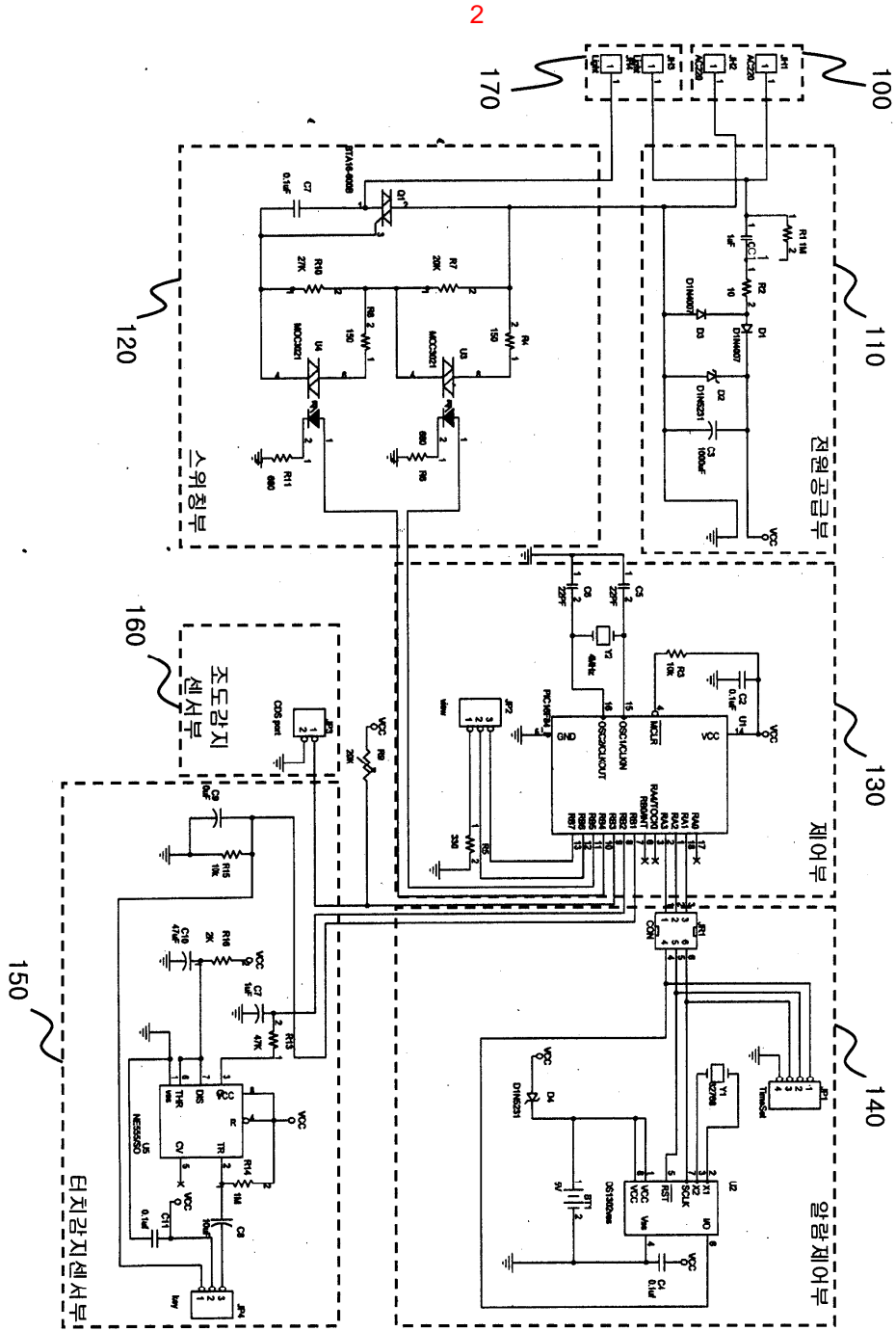
4

(280) ,

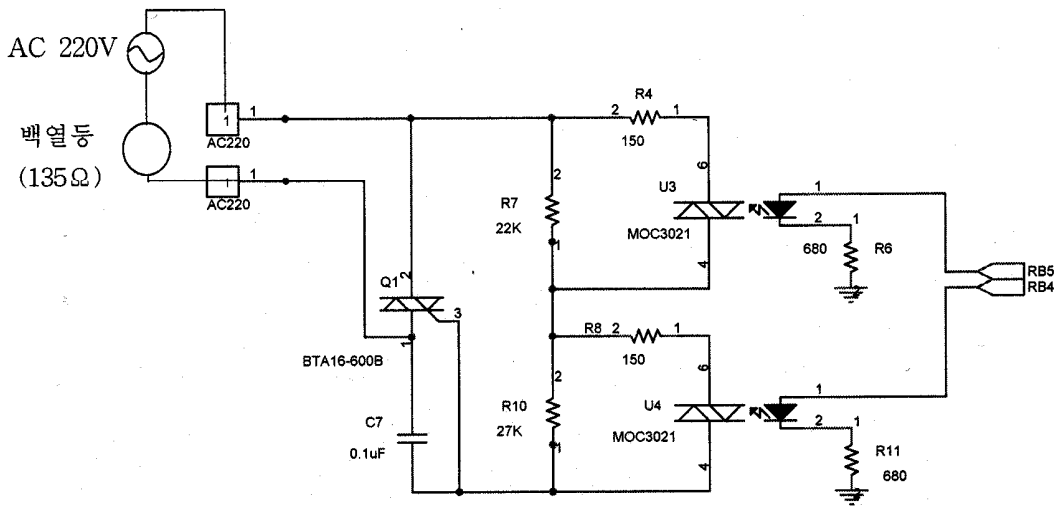
(R12, R13) (D3~D6) , (270) TRIAC
DIAC, VR3, C5 ,

(260) (230) (S3)가
(210) (220) , VR3

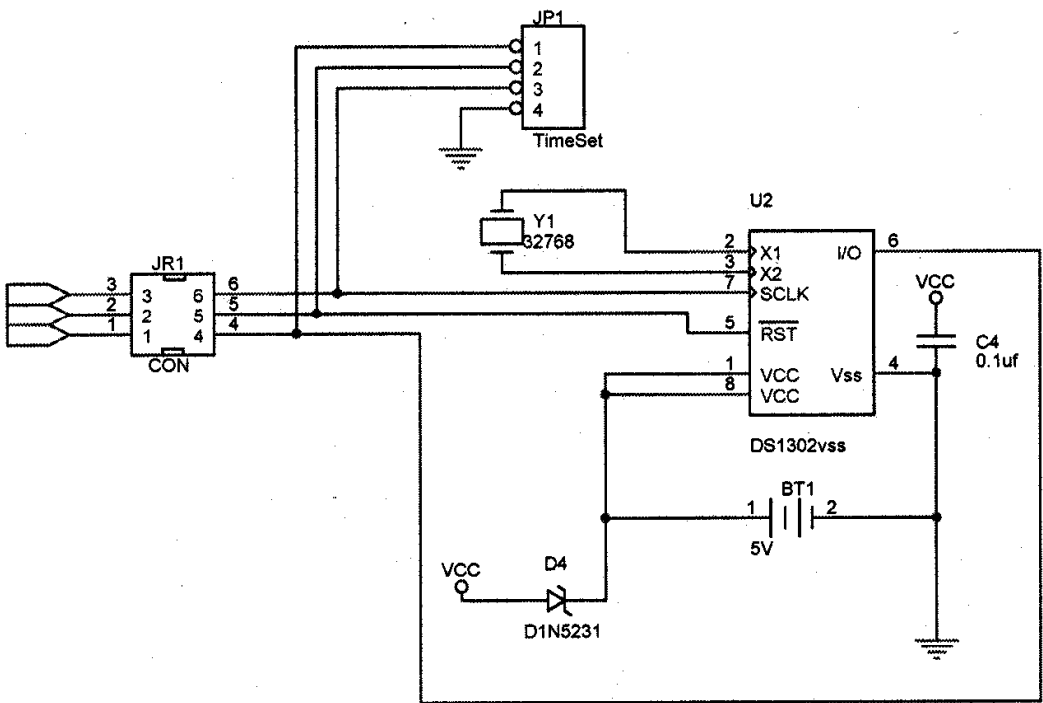




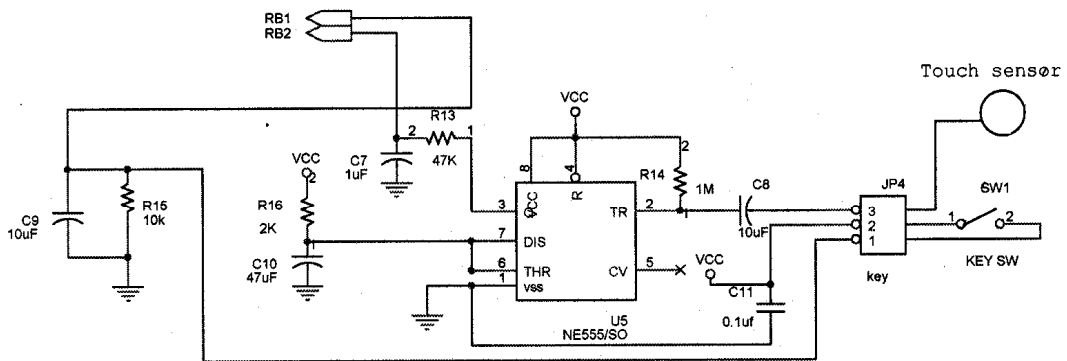
3b



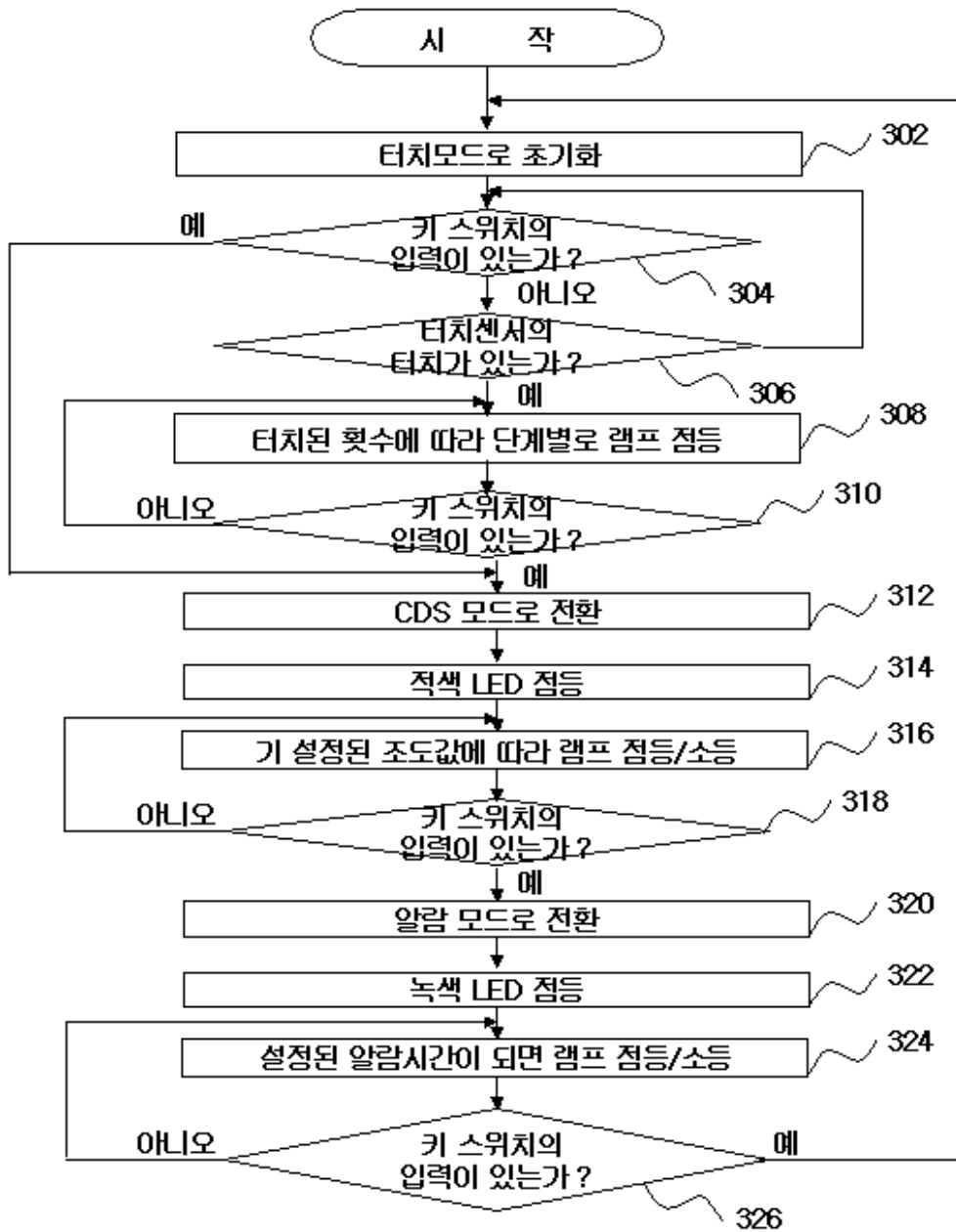
3c



3d



4



5

