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가 ID (S1);
(S2); (10)
(S3); (30)
(50) (30) (S4); (50) (S5);
(30) (S6);
(70) (S7)
, CLTD ,
Δ t , , 가 , 가 , Δ t ;
(Spec)
,
, , 가 , 가 , 가 (50)
DB(16) , 가 ,
가 ,

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/ / / / CLTD

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10 : 14 : DB
15 : DB 16 : DB
17 : DB 20 :
21 : 30 :
50 : 70 :

가 가

가 , 가

가

가

Δt , , Δt , ,
 , , (Spec) , ,
 1 (30) , 1 , ,
 (50) , (10) , (10) , 가 , ,
 , , , ,
 (30) , (10) , , 가 ,
 (10) , (50), , ,
 (70) . , ,
 2 (30) , 2 , ,
 (32)가 (31) , (32) ,
 ()가 , , (32)
 , (32) 가 (32)
 (33)가 , (33) ,
 (34)가 , (34) , (32) 가 (32) ,
 (32) (35)가 ,
 (35) 10/100 Mbps . 3 (1
 1) , (12), (13), (Database ; DB)가 (1
 , DB(14), DB(15), DB(16), DB(17)
 , (18), (19), (20), (21)가 가 (23)
 , DB (22) (23)
 (13) (10) (30), (70) (50) (30)
 (50) (50)
 가 DB , DB(14) , / , ,
 (,), DB(15) ,
 DB(16) (30) (50)
 (20) (21) .
 4 , ,
 0) / , 가 (30) ID (1
 (10) (10) , (10)
 (30) (S1) , (10) , (10)
 , , (S2) ,
 (30) (10) , /) (S3) ,
 (30) (30) (50)
 (30) (S4) ,
 (30) (50)
 (50) (S5) ,

(50) (S6) , (30) (70)

(30) (S7) .

5 가 , (30) (10) (S100). 가 가 (10) 가 (S101). 가 (S103), (S102). (S104). (S105).

6 D , , CLT

, 가 Δt , , 가 Δt , Δt , (S10000) , DB(15)

7 가 (S30000) , DB(16) (S50000) , 7 35 DB(15) (21) (30) (S11000) , (21) (30) DB(15) (S12000) , (21) DB(15) (S13000) , (21) (30) CLTD, CLTD CLTD / / (S14000) , (21) (30) DB(15)

CLTD CLTD

CLTD

(S15000)

(S170)

00) (21) (30) DB(15) ,가 ,가 /

Δt ,가 Δt ,가 Δt

(Spec.) (S19000)

8 (10) (30) 가 (21) DB 가 (Loading) (S11001) (S11002) 가 (1)

(S11004),
 = ($\div 1000$) \div
 = 1 \div ----- (1)
 가 (S11005).

(30) 0 0 가 0

9 (21) (30) DB(15) 9

(S12001), (tabs) 273.15

(S12002), (S12003).
 0 가 (tabs1) 273.15 (S12004) (2)

(S12005).
 포화증기압 = (EXP(-5800.2206 \div tabs + 1.3914993 - 0.048640239 * tabs
 + 0.000041764768 * tabs² - 0.14452093E-7 * tabs³
 + 6.5459673 * (LOG(tabs)))) \div 1000
 ----- (2)

0 가 (3)

(S12006).
 포화증기압 = (EXP(-5674.5359 \div tabs + 6.3925247 - 0.009677843 * tabs
 + 0.62215701E-6 * tabs² + 2.0747825E-9 * tabs³
 + 9.464024E-13 * tabs⁴ + 4.1635019 * (LOG(tabs)))) \div 1000
 ----- (3)

tabs tabs1
 0 가
 (4) (S12007).

절대습도 = 0.62198 * (외기냉난방상대습도 * 포화증기압) ÷ ((101.325 - 외기냉난방상대습도 * 포화증기압) ÷ 100) * 100

엔탈피 = (0.24 * 외기냉난방온도) + (597.5 + (0.441 * 외기냉난방온도))

```

----- ( 4)
10      11      /      /
10      (21)      (Glass Zone)      (NULL)      (S130
01) NULL      (SCL) NULL      (S13002),      NULL
      DB      ( )      (S13003).      (LOOP)가      (S13004)
      (S13004)      가      가      (S13001)

```

9 6 (RAD) sin, cos (5) (S13005).

P = Pi() ÷ 180
casin = sin(위도 * P)
cacos = cos(위도 * P)
sosin = sin(실내온도 * P)
socos = cos(실내온도 * P)

```

----- ( 5)
( 6) (S13006).
```

태양고도의 합 = asin(cacos * socos * cos(0.25 * 12 - 시간대별) * 60 * P + casin * sosin) * 180 ÷ Pi()

```

----- ( 6)
가 12 (S13007) 12가 0 (S13008) 가 12
(S13009) ( 7) (S13010).
```

누적계(sum) = acos((sin(태양각도합계 * P) * sin(위도 * P) - sin(실내온도 * P)) ÷ (cos(태양각도합계 * P) * cos(위도 * P))) * 180 ÷ Pi()

태양방위 = 누적계(Sum) * (-1)

```

----- ( 7)
가 12 ( 8) (S13011).
```

누적계(sum) = acos((sin(태양각도합계 * P) * sin(위도 * P) - sin(실내온도 * P)) ÷ (cos(태양각도합계 * P) * cos(위도 * P))) * 180 ÷ Pi()

태양방위 = 누적계(Sum)

```

----- ( 8)
(S13006) (S13012)
11 ( 9) (S13013),
```

- N = 태양방위 - 180
- NE = 태양방위 - (-135)
- E = 태양방위 - (-90)
- SE = 태양방위 - (-45)
- S = 태양방위 - 0
- SW = 태양방위 - 45
- W = 태양방위 - 90
- NW = 태양방위 - 135

```

----- ( 9)
90 < ABS( ) < 270 (S13014) ABS((TAN( ) * P) >= 180
(S13015) ABS(TAN( ) * P) (S13016), 가
NULL (S13017,13018).
, 90 < ABS( ) < 270 (S13019) NULL (S13023),
(TAN( ) * P) ÷ (cos( ) * P) >= 100 >= 0 (S13020)
NULL (S13022) (TAN( ) * P) ÷ (cos( ) * P)
(S13021).
가 (S13024) (S13014) (S13024)
```

12 (21) / / (30) CLTD (Type), 12
 NULL (S14001) N
 ULL (10) CLTD (S14002).
 유리기초CLTD = 시간대별CLTD값 + ((25.56 - 실내온도) + 냉방건구온도 - (일교차 ÷ 2) - 29.44)
 ----- (10)
 NULL (S14003) NULL (11)
 CLTD (S14004).
 지붕기초CLTD = 시간대별CLTD값 + ((25.56 - 실내온도) + 냉방건구온도 - (일교차 ÷ 2) - 29.44)
 ----- (11)
 NULL (S14005) NULL (12) C
 LTD (S14006).
 벽기초CLTD = 시간대별CLTD값 + ((25.56 - 실내온도) + 냉방건구온도 - (일교차 ÷ 2) - 29.44)
 ----- (12)
 NULL (S14010) CLTD NULL (S14007,14008,14009).
 (S14001) (S14010)
 13 18
 13 (30) CLTD 13 (21)
 Kw) DB(15) (S15001), (Factor),
 (S15002), (S15003)
 (Glass zone), 8 (S15004), NULL (S15006,15007,15008) CLTD (S15009),
 13) CLTD = * * Δ t ----- (13)
 CLTD (14) (S15010),
 CLTD = * * CLTD + (-)
 ----- (14)
 CLTD (15) (S15011).
 CLTD = * * CLTD + (-)
 ----- (15)
 NULL (S15012) (S15005) (S15012)
 (S15012)
 14 CLTD
 (21) 가 NULL (S15021) NULL (16)
 CLTD (S15022),
 CLTD= * * CLTD +(-)
 ----- (16)
 , NULL (S15023) 가 NULL (S15023) NULL NULL
 (S15024) NULL (30)
 (17) (S15025),
 = * * / ----- (17)
 , NULL 10 11 (S15026).
 , (S15023) NULL 17 (S15061)
 15 (1, 2) 0 가 0 가
 (S15031) (1, 2) 0 가 0 가
 (S15032) (S15033).
 (1) * > + (2) => 0 (S15034)
 , (2) > (1) * (S15035)
 - (1) * + (2) (S15036).
 (1) * > + (2) = 0 (S15037)

(2) > (2) * (S15038)
 (1) * + (2) (S15039).
 0 가 0 가 (S15031) (

S15034) 0 가 0 가 (S15032) (S15037)

(1) * > + (2) => 0 (S15034)
 0 (S15040), (S15037)

(2) > (1) * (S15035)
 (S15041) (S15037)

(1) * > + (2) = 0 (S15037)
 0 (S15042) (S15039)

(2) > (2) * (S15043).
 16 (1, 2) 0 가 0 가 (S15051)
 5051) (S15052).

(1) * > + (2) = 0 (S15053)
 (2) > (1) * (S15054)

(1) * > + (2) (S15055).
 0 가 0 가 (S15051) (S15053)

(1) * > + (2) = 0 (S15053)
 0 (S15056) (S15058)

> * (S15054)
 (S15057) (S15058)

15 (18) (S15058).
 총유리합 = 총유리넓이 + 총유리높이
 차폐계수 = 차폐계수 입력값
 일사량 적용CLTD = 차폐계수 + 총유리합
 일영면에 대한 일사량 적용CLTD = (면적 - 총유리합) * 차폐계수
 ----- (18)

(S15059) 가 14 (S15023) (S15059)

17 NULL
 (S15061) 가 (S15062) NULL
 (S15063) NULL (S15064), NULL
 (30) (S15065).

가 (S15066) NULL (S15067) NULL (S15068) NULL (S15069).
 5067) NULL (*) ÷ 1000 (S15068) NULL (S15069).
 30) 가 (S15070) (*) ÷ 1000
 (S15071) 0 (S15071).
 NULL (S15061)

18 (S15081)
 가 (S15072) 0 (S15066)
 가 (S15073) 0 (S15070)
 가 (S15074) 0 18 15081(S)
 18 가 0 (S15081) 0
 , 0 (t) 275.15 (S15082).
 (30)
 (30) 0 (S15083)
 (19, 20)) (S15084,15085).

실내냉방이 0보다 클 때의 증기압 =
 (EXP(-5800.2206 ÷ t + 1.3914993 - 0.048640239 * t
 + 0.000041764768 * t^2 - 0.14452093E-7 * t^3
 + 6.5459673 * (LOG(t)))) ÷ 1000

----- (19)

실내냉방이 0보다 작을 때의 증기압 =
 $(EXP(-5674.5359 \div t + 6.3925247 - 0.009677843 * t$
 $+ 0.62215701E-6 * t^2 + 2.0747825E-9 * t^3$
 $+ 9.464024E-13 * t^4 + 4.1635019 * (LOG(t)))) \div 1000$

----- (20)

(21) (S15086).

절대습도 = 0.62198 * (실내냉방상대습도 * P) ÷ ((101.325
 - 실내냉방상대습도 * P ÷ 100) * 100)

----- (21)

P (19, 20, 21)
 가 0 (S15087) 0 (S15089), 0 (S15088) 0
 * *
 0 (S15090).
 , 가 0 (S15087) 0 (S15091).
 0

(22) (S15092).

침입외기(현열) = 0.24 * 1.2 * 체적 * (냉방건구온도 - 실내냉방온도)
 침입외기(잠열) = 1.2 * 597.5 * 체적 * (절대습도 - 엔탈피)

----- (22)

13 18
 19 22
 19 (21) 13
 8 (S17001,17002).
 가 NULL (S17003) NULL 가 (S17004),
 가 W 가 N NE (S17005), 가 E NW (S17006), 가 S SW (S17007),
 SE (S17008) 1, 1.2, 1.5, 1.05, 1.1
 (S17009,17010,17011,17012,17013).
 , 가 NULL (S17003) NULL 21 (S17031)
 20 가 (S17021,17022,17023)

(23) (S17024,17025,17026).

전열(간벽) = 면적 * 열관류율 * 난방
 전열(지붕) = 면적 * 열관류율 * 방위계수 * (난방실내온도 - 난방건구온도)
 전열(외벽) = 면적 * 열관류율 * 방위계수 * (난방실내온도 - 난방건구온도)

----- (23)

(S17027) 19 (S17003) (S17027)
 21 가 NULL (S17031) NULL
 가 N NE (S17032), 가 E NW (S17033), 가 S SW (S17034),
 SE (S17035) 1.2, 1.15, 1.05, 1.1
 (S17036,17037,17038,17039), (24) (S17040).
 = * * * ()

----- (24)

(S17041) (S17031) (S17071)
 , 가 NULL (S17031) NULL (S17041)
 22 가 NULL (S17051) NULL NULL
 (S17052) NULL * * (S17053),
 NULL 0 (S17054).
 , 가 NULL (S17051) NULL (S17055).
 , 가 NULL 0

(25) (S17056).

침입외기(난방-현열) = 0.24 * 1.2 * 체적 - (실내난방건구온도
 - 실외난방건구온도)

----- (25)

(S17057) 19 (S17003) (S17057)

23 35 (21) 23

(30) DB(15) (S19001).

가 (S19002) (26)

(S19003),

내부부하 = 사람(현열) + 사람(잠열) + 전등 + 기기 + ((1+안전율) ÷ 100)

전등부하(천정) = 전등 * ((1+안전율) ÷ 100) * (전등부하율 ÷ 100)

----- (26)

가 0 (S19004).

가 NULL (S19005) NULL 가 (ROOF)

(S19006,19007,19008) (HROOF) (S19009), (WALL) (HPAT)

(HWALL) (S19010), (PAT) (GLASS)

(S19011).

가 NULL (S19012) NULL (S19013).

(HGLASS) (S19014) NULL (S19012)

가 NULL (S19012) NULL (S19014)

(S19014) (S19005) (S19014)

24 (S19020), (S19

023), (S19021), (S19022), (S19025)

(S19032) (S19024) (27, 28, 29, 30, 31,

32) (S19026,19027,19028,19029,19030,19031).

외벽냉난방부하적용

외벽냉방부하 = WALL * ((1+안전율) ÷ 100)

외벽난방부하 = HWALL * ((1+안전율) ÷ 100) ----- (27)

간벽냉난방부하적용

간벽냉방부하 = 실별시간별냉방부하 + PAT * ((1+안전율) ÷ 100)

간벽난방부하 = 실별난방부하 + HPAT * ((1+안전율) ÷ 100) --- (28)

지붕냉난방부하적용

지붕냉방부하 = 시간별냉방부하 + ROOF * ((1+안전율) ÷ 100)

지붕난방부하 = 시간별난방부하 + HROOF * ((1+안전율) ÷ 100) ---- (29)

유리냉난방부하적용

유리냉방부하 = 시간별냉방부하 + GLASS * ((1+안전율) ÷ 100)

유리난방부하 = 시간별난방부하 + HGLASS * ((1+안전율) ÷ 100) --- (30)

침입외기냉난방부하적용

침입외기(현열) = 실별냉방부하 + 침입외기(현열)

침입외기(잠열) = 실별난방부하 + 침입외기(잠열)

침입외기난방부하 = 실별난방부하 + 침입외기의 합 ----- (31)

인체냉난방부하적용

인체냉방부하 = 시간별인체냉방부하 + 인체(현열) + 전등

+ 기기 * ((1+안전율) ÷ 100)

인체냉방잠열 = 인체냉방부하 * ((1+안전율) ÷ 100) ----- (32)

(S19032) (S19020) (S19032)

(S19034) 23 (S19005) (S19034) (19033)

25 (S19040), 0 (S19041) 0

(33) (S19042).

$$= \frac{(\dots)}{0} \div (\dots) \quad (33)$$

(S19043), (S19044).

인원의 합 = (실별 공조기 수량 * 실별 인원의 합) ÷ 공조기 수량의 합
 내부부하의 합 = (실별 공조기 수량 * 실별 내부부하) ÷ 공조기 수량의 합
 시간별 냉방부하의 합 = (실별 공조기 수량 * 시간별 실별 냉방부하) ÷ 공조기 수량의 합
 난방부하 = (실별 공조기의 합 * 실별 난방부하) ÷ 공조기 수량의 합

$$\dots \quad (34)$$

(S19050,19051)
 (S19052).

(S19053).
 가 0 (S19054) 0 (S19055).

$$= \frac{\dots}{0} \div (\dots) \quad (35)$$

(S19056).
 27 0 Δ t 0 (S19061), (S19062).
 0 NULL (S19063) NULL 100 (S19064).
 LL (30) (S19065). NULL NU

(S19066) Δ t NULL (S19068), DX
 (S19069) Δ t NULL (S19070).
 Δ t 가 NULL (S19071) NULL
 Δ t 가 NULL (S19072), Δ t NULL

(S19073).
 28 Δ t Δ t (S19081), (S19080)
 NULL (S19082) (S19083)
 (S19084), NULL (S19085) Δ t
 NULL (S19086), 가
 Δ t (S19087), (30)
 (S19088). (30)
 (S19089). (30)

(S19090) NULL (S19091).
 (S19092) NULL (S19093) Δ t (S19094), (S19096),
 가 NULL Δ t (S19097).
 (30) (30) NULL (S19098).

(30) NULL (S19099).
 Δ t 29 가 Δ t (S19100)
 가 가 NULL (S19101). 가 가
 (S19102) 가 (S19103) 가
 S19104), 가 NULL (S19105) 가 Δ t N
 NULL (S19106), 가 가 Δ t
 NULL (30)

(S19107).
 ,가 (30)
 ,가 NULL (S19108).
 ,가 (30)
 가 Δ t , NULL (S19109).
 가 가 가 가 (S19110) NULL (S19111), 가
 가 가 가 (S19112) (30)
 (S19113).
 30 가 가 NULL (S19121) NULL (S19120) NULL (30) NULL (S19122).
 (S19124) (30) (S19125)
 (30) (S19126). 가
 (S19127).
 , , NULL (S19128) NULL (S19124) (30)
 (30)
 (S19129) (S19127) NULL (S19130),
 가 NULL DX (S19131).
 NULL (S19132) NULL NULL (S19133), NULL (S19134).
 = ÷ (0.31 *) ----- (36)
 31 Δ t 가 NULL (S19140) NULL
 Δ t (S19141), Δ t 가 NULL NULL
 (S19142). Δ t 가 NULL 0 (S19144), NULL (S19143) NUL
 (S19145). (37)
 = ÷ (0.09 * Δ t) ----- (37)
 32 Δ t (38) (S19150),
 = * ÷ 3670 * *
 ----- (38)
 , BLOW / (S19151) BLOW Δ t /
 0 (S19152) Δ t
 (S19153), DRAW Δ t (S19154) DRA
 (S19155), Δ t (39)
 W (S19156).
 Δ t = ((+1) * (1-) * 860 * 0.8) ÷ (0.29 *)
 ----- (39)
 , BLOW (S19151) Δ t 0 (S19157) ,
 (S19160) 0 Δ t 0 (S19158) , (S19160)
) Δ t (40)
 , DRAW Δ t (S19159) , (S19160)
 Δ t = ((+1) * (1-) * 860) ÷ (0.29 *)
 ----- (40)
 , (41) (S19160).
 최종냉방온도(T) = 냉방온도 - 냉방Δ t - 재열Δ t - 급기팬Δ t
 절대온도(TA) = T + 273.15
 절대온도(TA1) = 냉방온도 + 273.15 --- (41)
 33 , (42, 43)
 (S19161,19162).

$$\text{포화증기압1} = (\text{EXP}(-5800.2206 \div \text{TA1} + 1.3914993 - 0.048640239 * \text{TA1} + 0.000041764768 * \text{TA1}^2 - 0.14452093\text{E-}7 * \text{TA1}^3 + 6.5459673 * (\text{LOG}(\text{TA1})))) \div 1000$$

$$\text{절대습도1} = 0.62198 * (\text{냉방상대습도} * \text{증기압}(\div ((101.325 - \text{냉방상대습도} * \text{증기압} \div 100) 100))$$

$$\text{엔탈피1} = (0.24 * \text{냉방온도}) + ((597.5 + (0.441 * \text{냉방온도})) * \text{절대습도1})$$

----- (42)

$$\text{포화증기압2} = (\text{EXP}(-5800.2206 \div \text{TA} + 1.3914993 - 0.048640239 * \text{TA} + 0.000041764768 * \text{TA}^2 - 0.14452093\text{E-}7 * \text{TA}^3 + 6.5459673 * (\text{LOG}(\text{TA})))) \div 1000$$

$$\text{절대습도1} = ((1-\text{현열비}) * \text{엔탈피1} \div 597.5 - (1-\text{현열비}) * 0.24 * (\text{T} + \text{재열}\Delta t + \text{급기팬}\Delta t) \div 597.5 - \text{절대습도}) \div ((1-\text{현열비}) * (597.5 + 0.441 * (\text{T} + \text{재열}\Delta t + \text{급기팬}\Delta t)) \div 597.5 - 1)$$

$$\text{엔탈피1} = (101.325 * \text{절대습도2} \div (\text{증기압2} * 0.62198 * \text{절대습도2})) * 100$$

----- (43)

$$\Delta t \text{ 가 } 0 \quad (\text{S19163}) \quad 0 \quad (\text{S19164}). \quad (\text{S19170}, 19$$

$$34 \quad 171) \quad (\text{S19172}),$$

$$\text{급기량} = \text{냉방최대값의 합} - \text{전등부하의 합} \div (0.29 * \text{내방}\Delta t)$$

$$\text{실별계산풍량} = (\text{시간별부하의 최대값} - \text{전등부하}) \div (0.29 * \text{실별부하최대값의 합} - \text{전등부하}) \div (0.29 * \text{급기량})$$

----- (44)

$$\text{급기량} = \text{시간별냉방최대값} - \text{전등부하의 합} \div (0.29 * \text{냉방}\Delta t)$$

$$\text{실별계산풍량} = (\text{시간별부하최대값} - \text{전등부하}) \div (0.29 * \text{급기량})$$

----- (45)

$$0 \quad (\text{S19175}) \quad 0 \quad (\text{S19176}), \quad (\text{S19174}).$$

$$(\text{S19177}). \quad \text{가 } 0 \quad (\text{S19178}) \quad 0 \quad (\text{S19179}), 0$$

$$(\text{S19181}) \quad (\text{S19175}) \quad (\text{S19180}). \quad (\text{S19181})$$

$$(\text{S19181}) \quad (\text{S19175}) \quad (\text{S19182}).$$

- 팬내부정압 = 내부입력정압의 합 * 안전율
- 팬외부정압 = 외부입력정압의 합 * 안전율
- 내부정압의 합 = 입력정압의 합 + 팬내부정압
- 급기팬정압 = 급기입력정압의 합 * 안전율
- 급기팬정압의 합 = 입력정압의 합 * 급기팬정압
- 환기팬정압 = 입력정압의 합 * 안전율
- 환기팬정압의 합 = 입력정압의 합 + 환기팬정압
- 급기덕트정압 = 내부정압의 합 + 급기팬정압의 합
- 환기덕트정압 = 환기덕트정압의 합

$$35 \quad (\text{SPEC}) \quad / \quad (\text{S19190})$$

$$/ \quad (\text{S19191}) \quad (\text{S19193}) \quad (\text{S19192}), \quad / \quad (\text{S19194}, 19195). \quad (\text{S19193}) \quad (\text{S19194}, 48)$$

환기팬 = 환기풍량
 환기팬정압 = 환기덕트정압
 모터효율 = 환기팬효율 ÷ 100
 모터안전율 = (환기팬안전율 + 100) ÷ 100
 모터파워 = (환풍기량 * 환기팬정압 ÷ ((6120 * 60) * 효율) * 안전율) + 1
 환기팬스펙 = 환기량 * 환기팬정압 * 모터파워

----- (47)

급기팬 = 급기풍량
 모터효율 = 급기팬효율 ÷ 100
 모터안전율 = (급기팬안전율 + 100) ÷ 100
 모터파워 = (급기풍량 * 급기팬정압 ÷ ((6120 * 60) * 효율) * 안전율) + 1
 급기팬스펙 = 급기량 * 급기팬정압 * 모터파워

----- (48)

36 / 47 / 0 (S19196). 36 40
 , 42 45 36
 (S30001) NULL (S30002),
 DX (S30003) DX가 40 (S30091)
 , DX DB
 (S30004),
 (S30005).
 (S30006) NULL (S30007),
 (S30008,30009) (S30010). ((

49) = * 860 * (1-) ----- (49)
 , = * 860 * 0.8 * (1-) ----- (50) (S30011).
 37 / (S30020) NULL , DRAW
 BROW (S30021), DRAW
 (51) (S30022,30023)
 = * 860 * (1-) ----- (51)
 (52) (S30025).
 = * 860 * 0.8 * (1-) ----- (52)
 0 (S30026) 0
 NULL (S30027), 0 , (53) (S30028).
 = (+ + ÷ (0.29 *))
 ----- (53)

38 0 (S30057) , (S30056)
 050) 0 1 가 (S30051,3
 0052,30053) (54) (S30056)
 56),
 혼합공기온도 = (외기량 ÷ 급기량) * 외기건구온도 + ((1-외기량)
 ÷ 급기량) * 환기건구온도
 혼합공기절대습도 = (외기량 ÷ 급기량) * 외기절대습도 + ((1-외기량)
 ÷ 급기량) * 환기절대습도
 ----- (54)

가 (S30061),
 가 (S3006)
 2), 가 (S30063) (S30056) ((

39 DRAW
 (S30070) DRAW

NULL (S30071), DRAW (S30072,30073)
(55) (S30074).

BLOW

급기팬부하 = 모터파워 * 860 * (1-모터효율)
급기팬상승온도 = 급기팬부하 ÷ (0.29 * 급기량)

----- (55)
, BLOW

(56) (S30075).

급기팬부하 = 모터파워 * 860 * 0.8 * (1-모터효율)
급기팬상승온도 = 급기팬부하 ÷ (0.29 * 급기량)

----- (56)
가 0

(S30076)

가 0 NULL (S30077) , 40 (S30086) ,
(S30076)

(57) (S30078).

코일상승압력(무게단위) = 급기팬상승온도 + 코일조건(출구온도)
코일상승압력(부피단위) = 급기팬상승온도 + 코일상승압력(무게단위)
+ 코일조건(출구온도)

코일용량(무게단위) = 급기량 * 0.29 * 코일상승압력(무게단위)
* ((1+재열코일안전율) ÷ 100)
코일용량(부피단위) = 급기량 * 0.29 * (코일상승압력(부피단위)
- 코일상승압력(무게단위)) * ((1+재열코일안전율) ÷ 100)

----- (57)

40 (S30080), (S30081), (S30082) , , ()

(58) (S30083), () = () ÷ (60 *)

----- (58)

(59) (S30084).

() = () ÷
----- (59)

, () () NULL (S30085).

(60) (S30086).

코일조건(입구) = 혼합온도조건
코일조건절대습도(입구) = 혼합온도절대습도
코일조건엔탈피 = 0.24 *혼합온도 +597.5 +(0.441 *혼합온도)*혼합절대습도

----- (60)

() , (S30087), (61)

(S30088).

냉방용량 = 급기량 * 1,2 * (입구방식엔탈피 - 출구방식엔탈피)
* ((1-냉방코일안전율) ÷ 100)

----- (61)

(S30089) () (62)

(S30090),

() = (Kcal) ÷ (60 * Δ t)

----- (62)

가 () NULL (S30091).

41

(S30100) NULL (S30101), 45 (30174) (S30102)

DB(15)

(S30103).

102)

42

, (S30121) , 43 (S30140) 0 (S30120)

1 가 (S30122)

(S30123) 43 (S30140) ,
 1 가 (S30124) NULL (S30125)
) 43 (S30140) , 1 가
 (S30126) NULL (S30127) 43 (S30140)
 (63) (S30129) , 43 (S30140)

혼합온도 = (외기량 ÷ 급기량) * 외기건구온도 + ((1-외기량) ÷ 급기량)
 * 실별난방온도

----- (63)
 43 가 가 (S
 30140) (S30141) 가 가 0 (S
 (S30142) 0 (S30143) 가 0 (64)
) (S30144),
 = ÷ (0.31 * +)
 ----- (64)
 가 0 (S30145).
 (S30146) , 가 () (S30
) NULL (S30147), (65) (S30149).
 148)

난방예열용량 = 급기량 * (0.31 * 코일조건(출구) - 혼합온도)
 * (1+예열안전율 ÷ 100)

코일조건(입구) = 혼합온도

----- (65)
 44 가 (S30150)
 (S30151) (S30152)
 () (66) (S30153),
 () = () ÷ (60 *)
 ----- (66)
 () (67) (S30154),
 () = () ÷
 ----- (67)
 , () NULL (S30155).
 가 (S30156) 가 () () NUL
 L (S30157), 가 가 (S3015)
 8) 45 (S30174) , (68) (S30160),
 (S30159) 가

난방가열용량((Kcal/h) = 급기량 * (0.31 * 취출공기) - 혼합온도)
 * (1+가열안전율) - 혼합온도

코일조건(입구) = 혼합온도

코일조건(출구) = 취출온도

----- (68)
 가 (S30161)
 (69) (S30162).
 난방가열용량 = 급기량 * (0.31 * 취출공기 - 코일조건(출구))
 * (1+가열안전율) ÷ 100)
 코일조건(입구) = 혼합온도
 코일조건(출구) = 취출온도
 ----- (69)
 45 가 , ,가 ,가
 (S30170) (S30171) 가 () 가 (S30172).
 (30) ,가 가 () NULL (S30173).
 ,가 가 가 (S30174) 가
 , 가 NULL (S30175) ,가 가 가
 , 가 가 (S30176) (70)
) (S30180).

외기습공기조건 = 입력값
 실내습공기조건 = 입력값
 가습용량 = 외기량 * (1.2 * 실내절대습도 - 외기절대습도)
 * ((1+가스안전율) ÷ 100)

----- (70)
 46 (S30190,30191). (71)

건물냉난방부하 = 외기부하 + 침입외기부하 + 내부부하 + 외기부하
 + 급/배기부하 + 가습기부하

건물냉난방용량(USRT) = 건물난방부하 ÷ 3024

공조기냉방부하 = 냉방용량 * 공조기수량

공조기난방부하 = (예열용량 + 가열용량) * 공조기수량

공조기용량(USRT) = 공조기냉난방부하 ÷3024

----- (71)

가 , 가 ,
 가 , 가 ,
 가 , 가 ,
 가 , 가 ,

(57)

- 1.
- 2.
- 3.
- 4.
- 5.

(30);
 , 가 (50);
 (30) ,
 (50) , 가
 (10); (70)
 (30) ID (S1);
 (S2);
 (10) (S3);
 (30) (50)
 (30) (S4); (50)
 (50) (50)

(S5);

(S6);

(30)

(70)

(S7)

CLTD

Δt

가

가

Δt

(Spec)

가

(50)

DB(16)

가

6.

5

CLTD

CLTD

CLTD

가

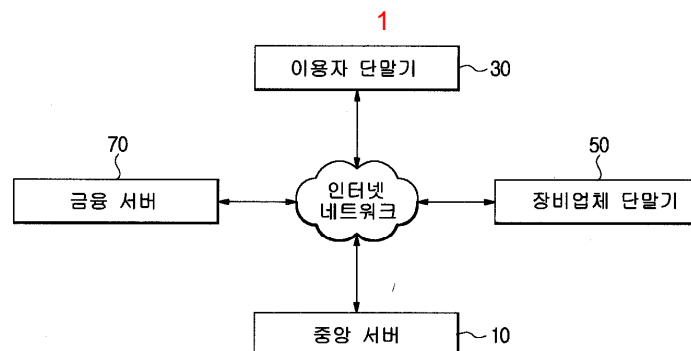
Δt

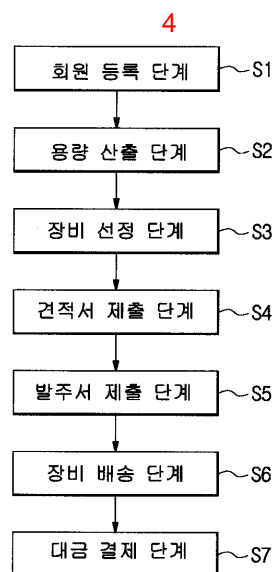
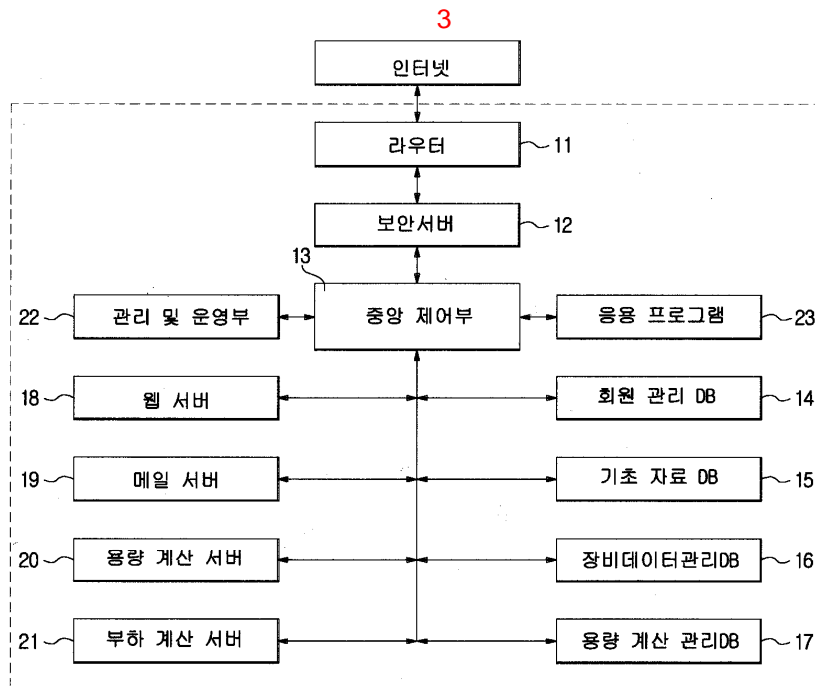
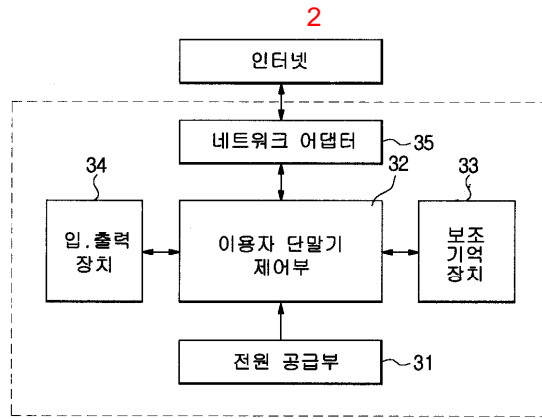
가

Δt

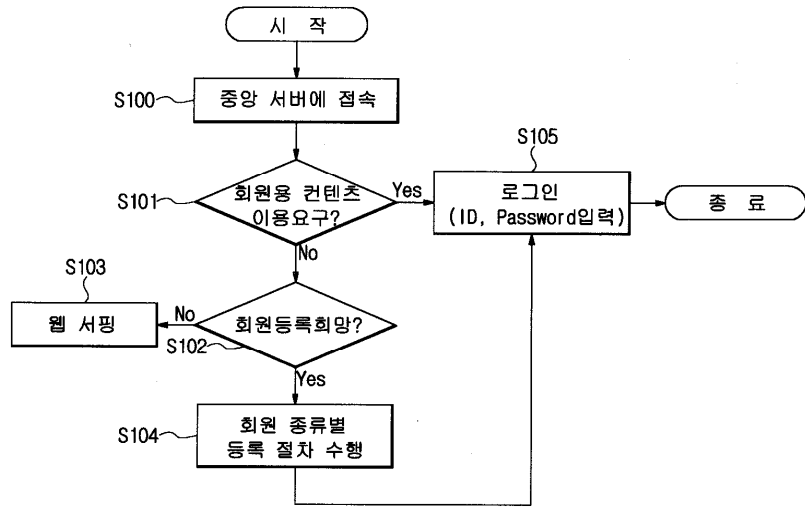
Δt

(Spec)

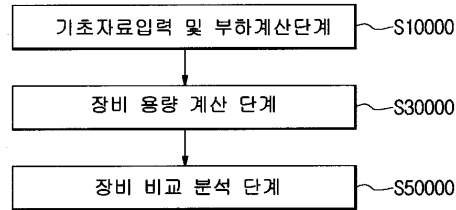




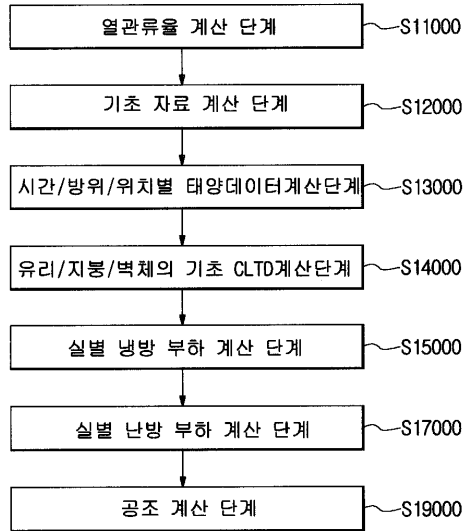
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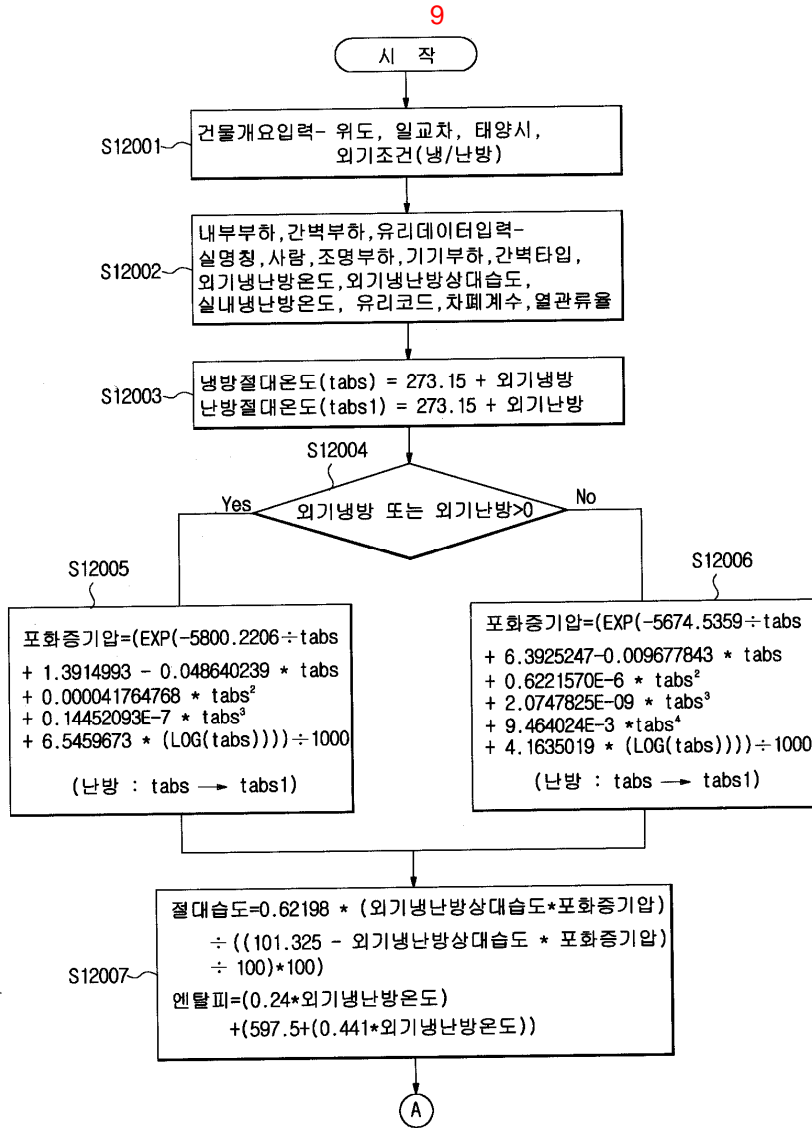
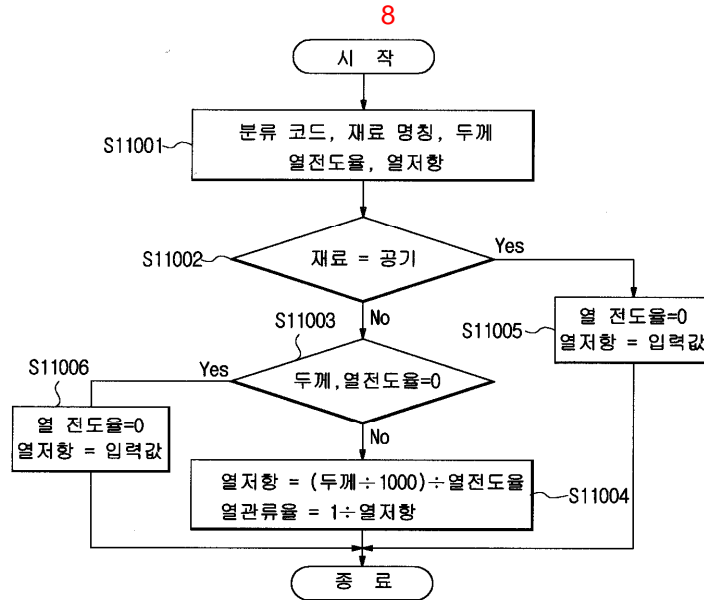


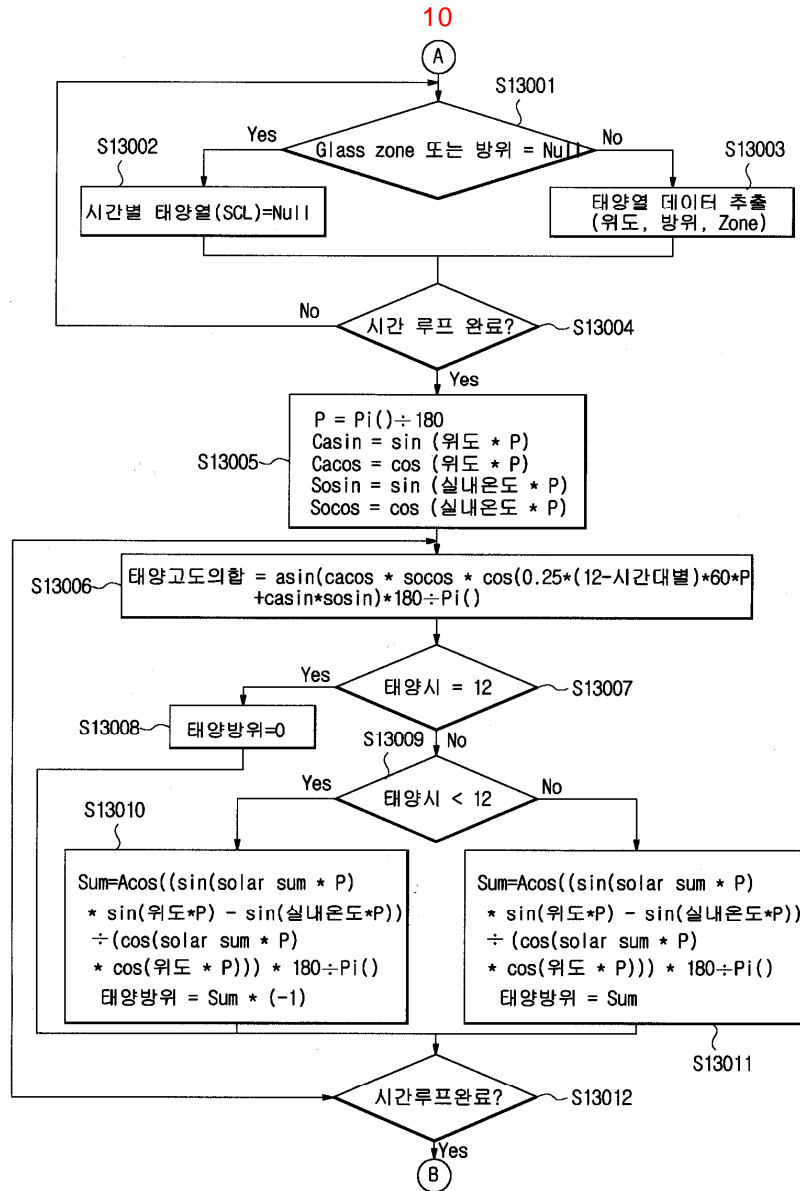
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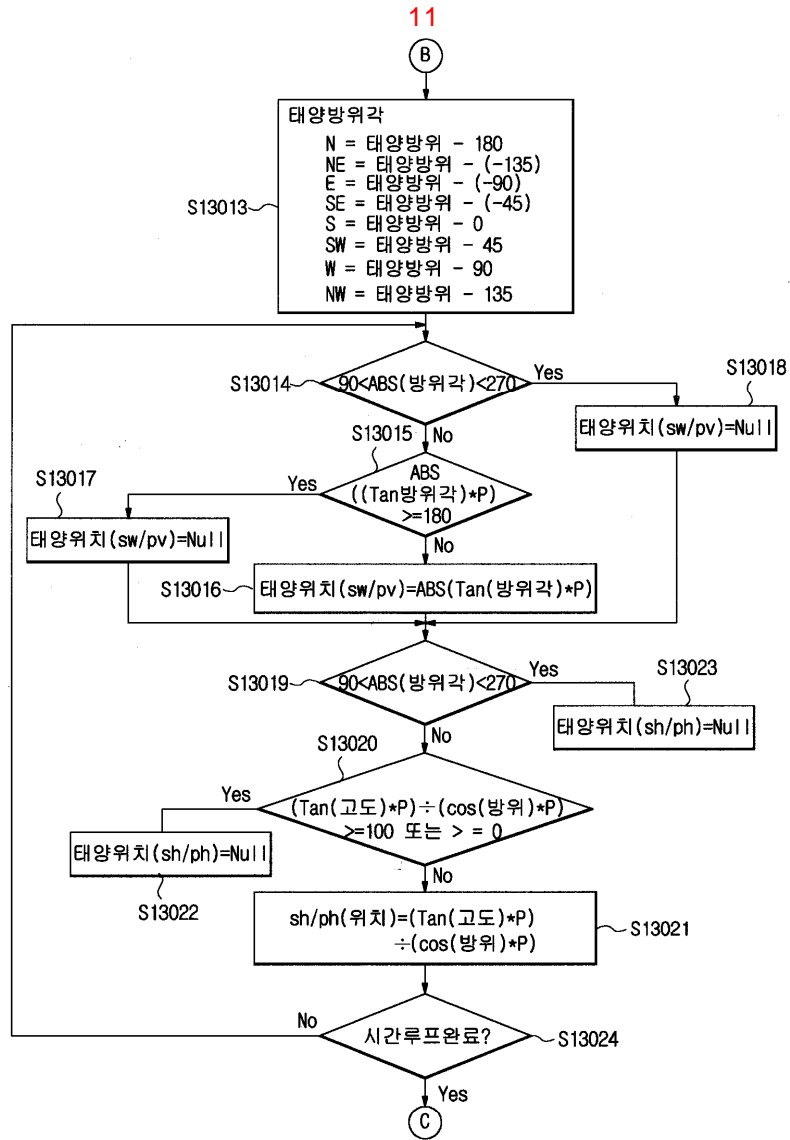


7

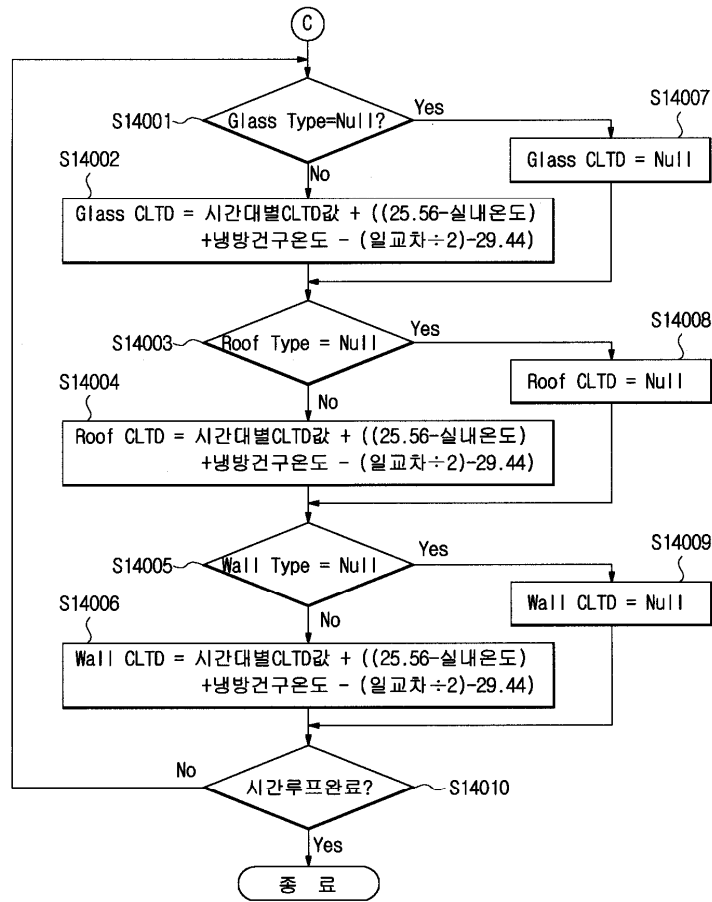




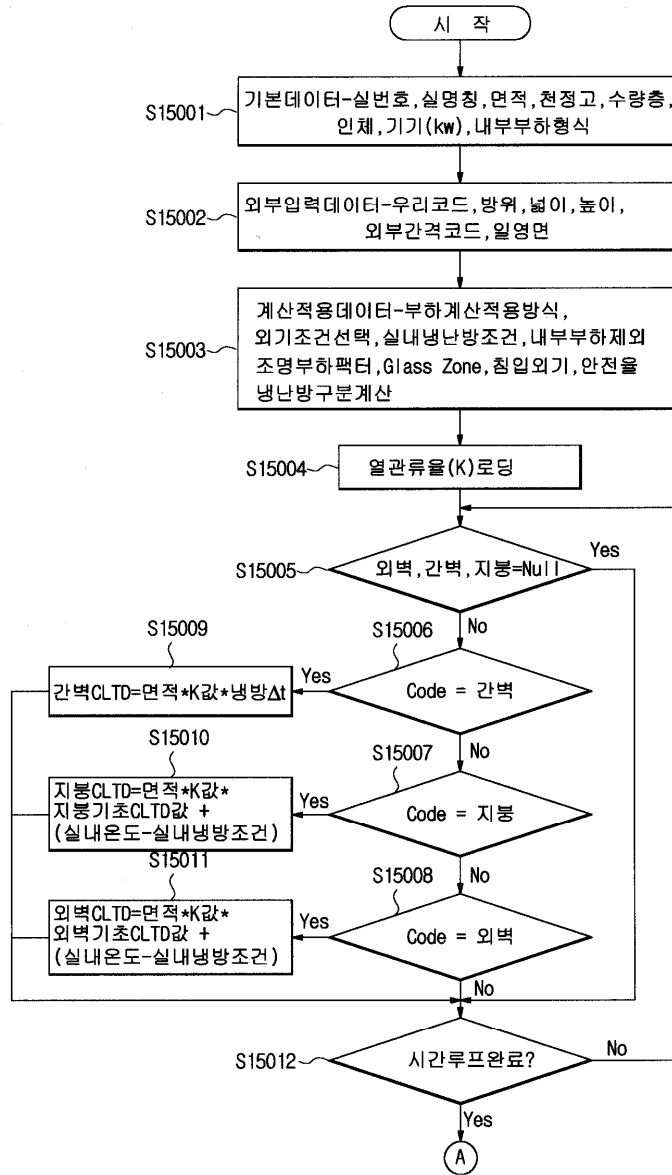


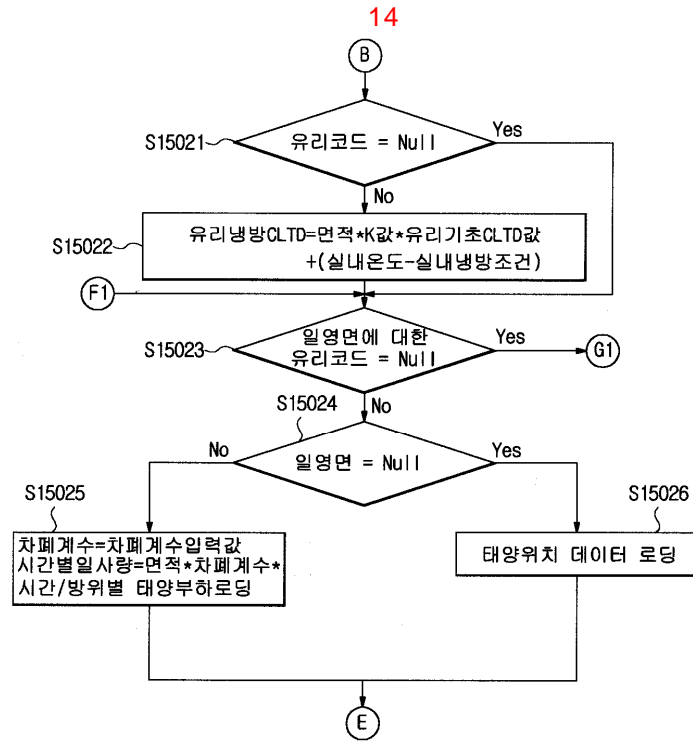


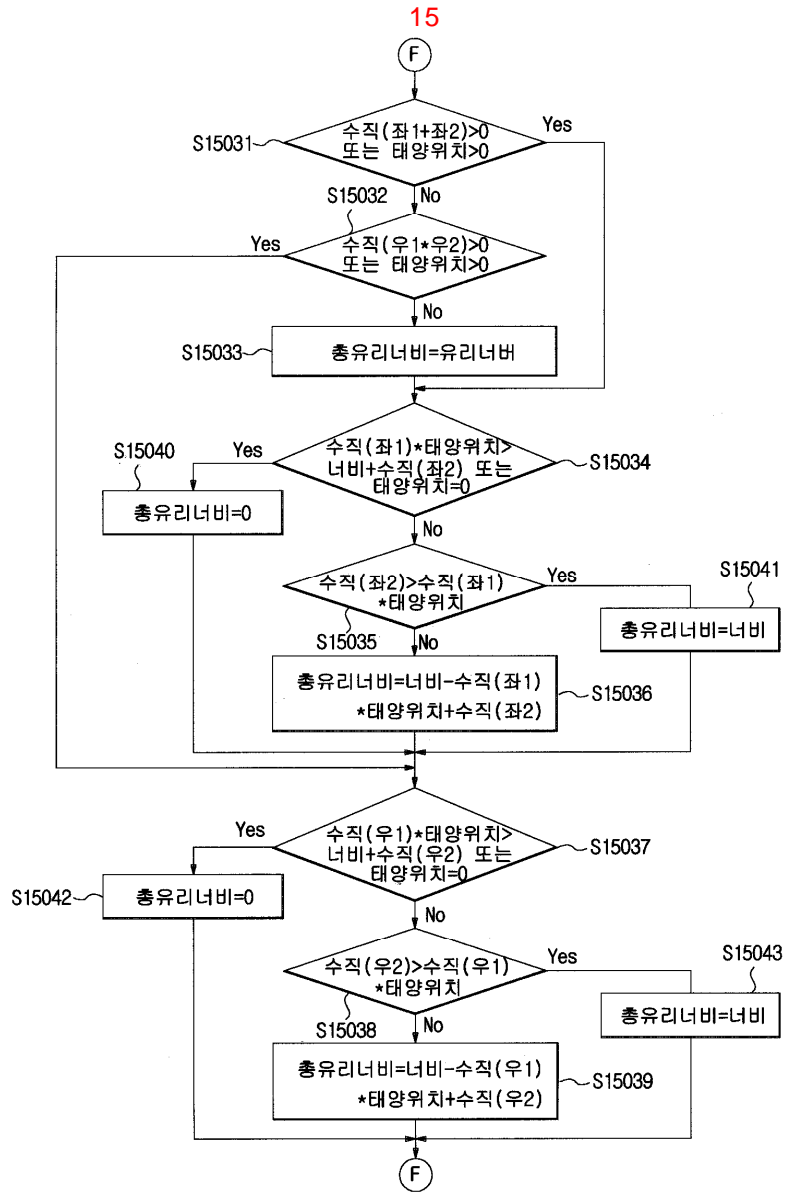
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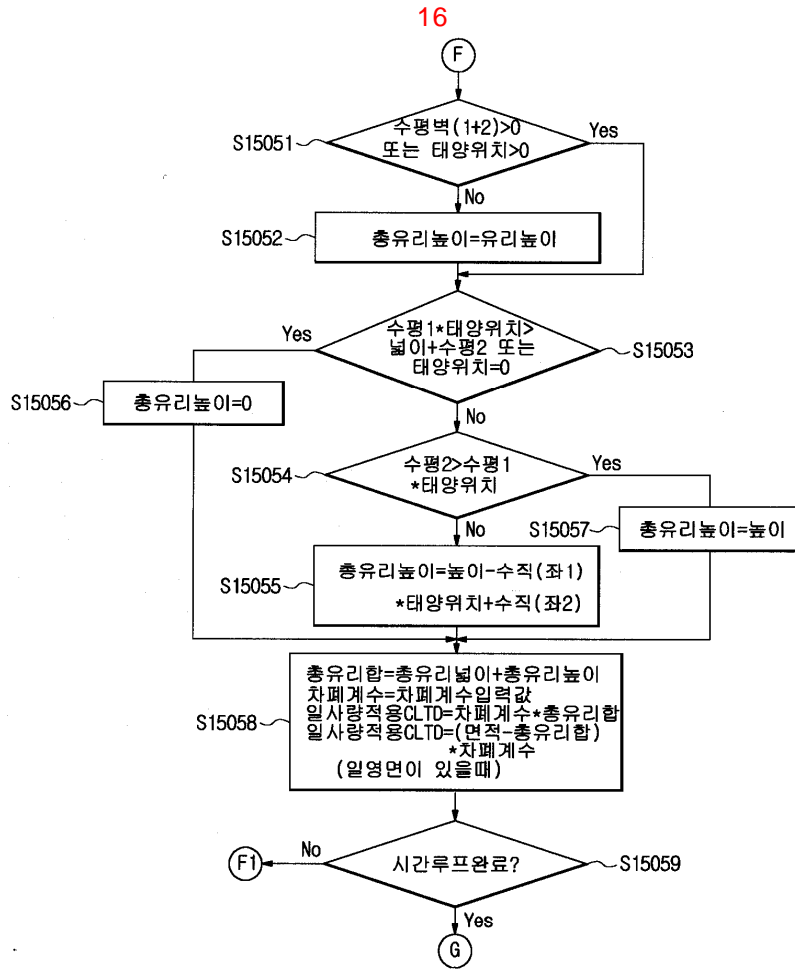


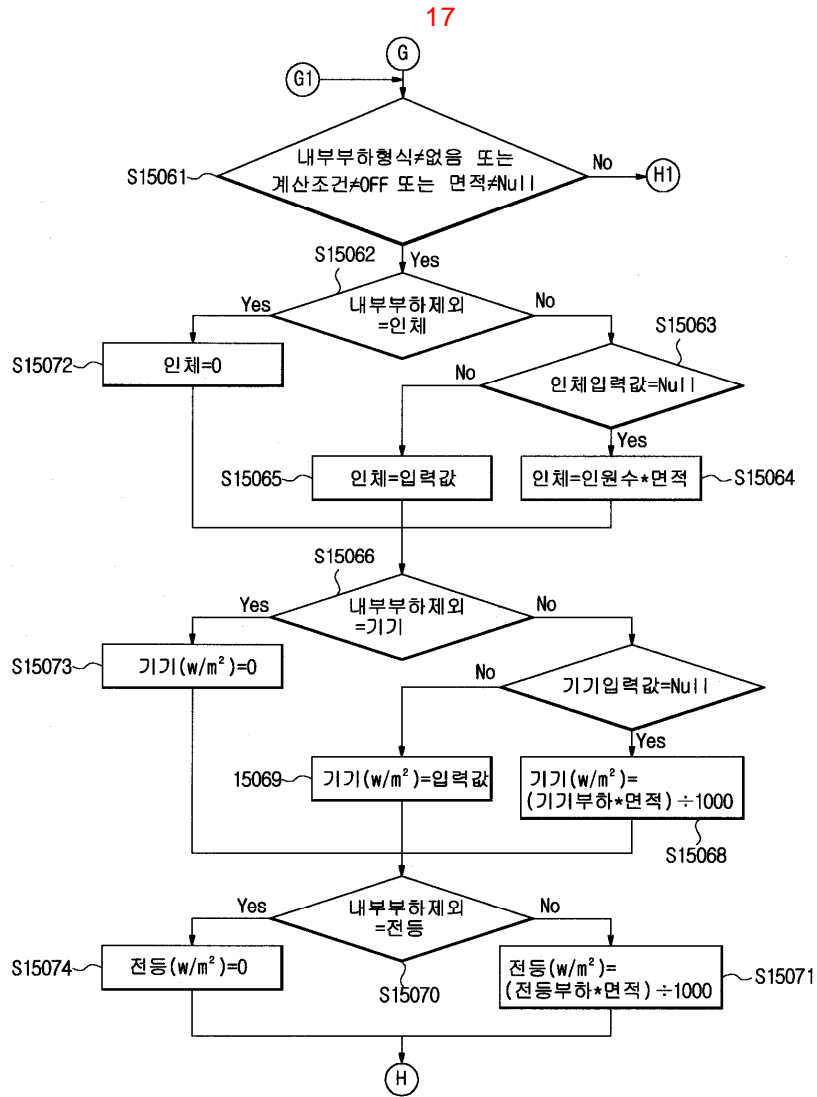
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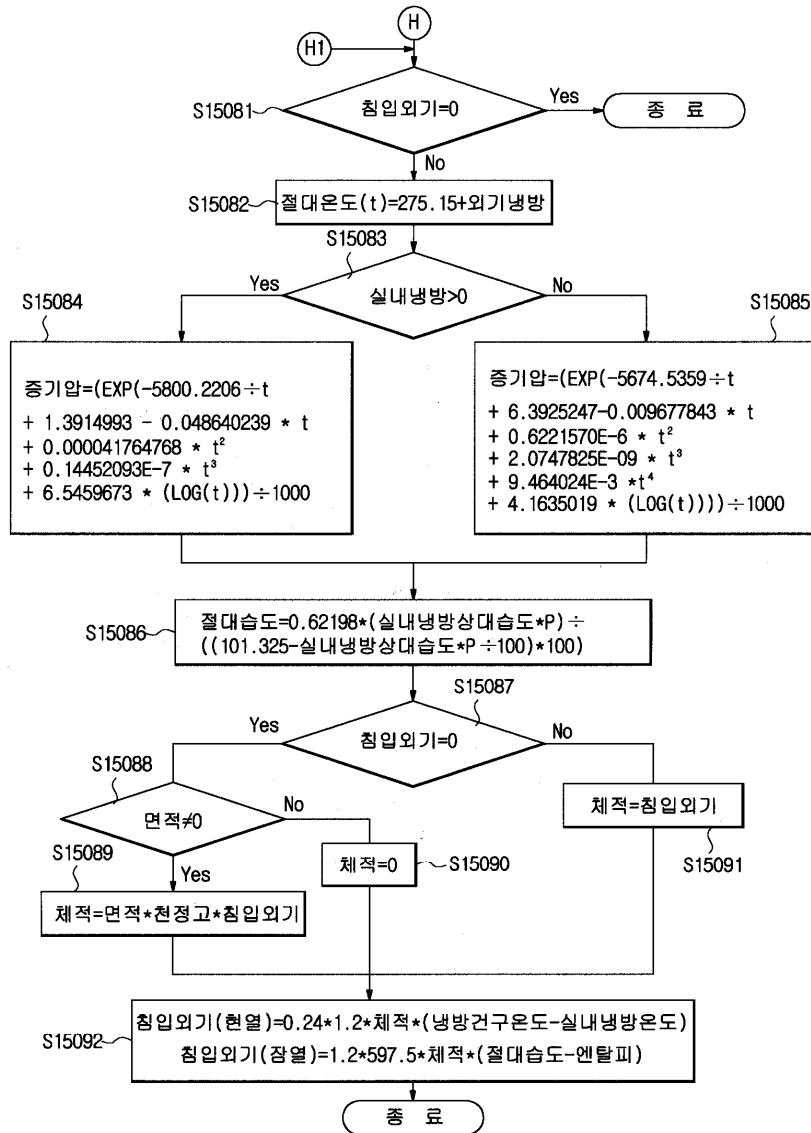




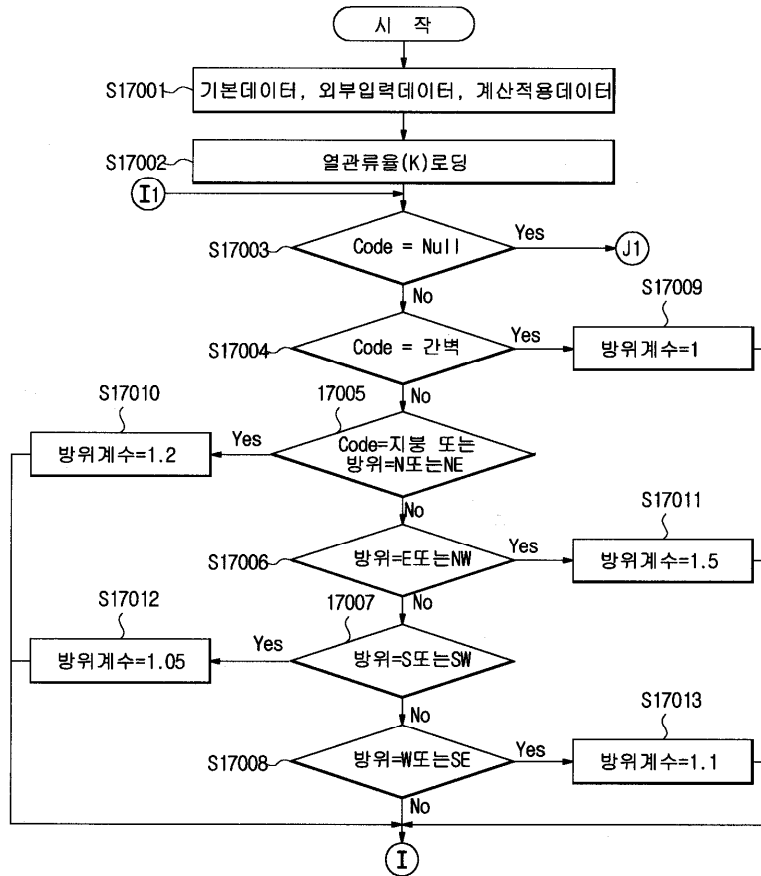




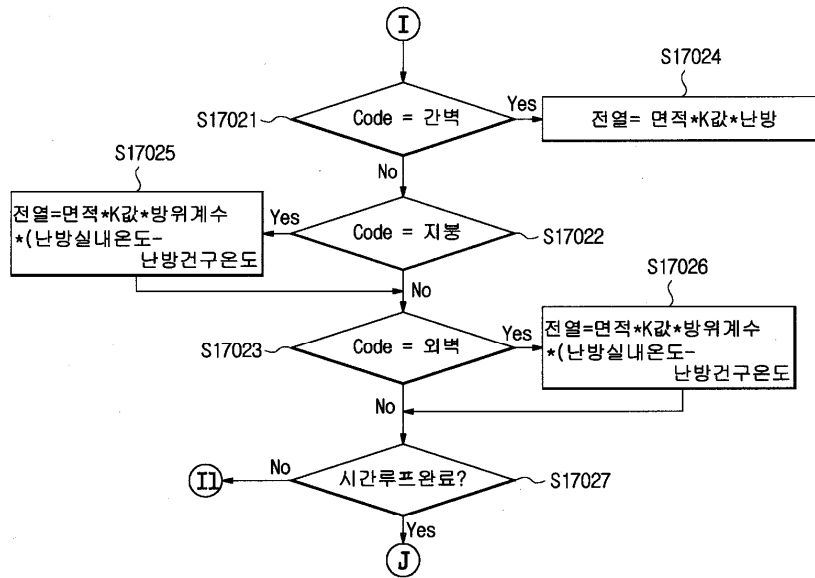
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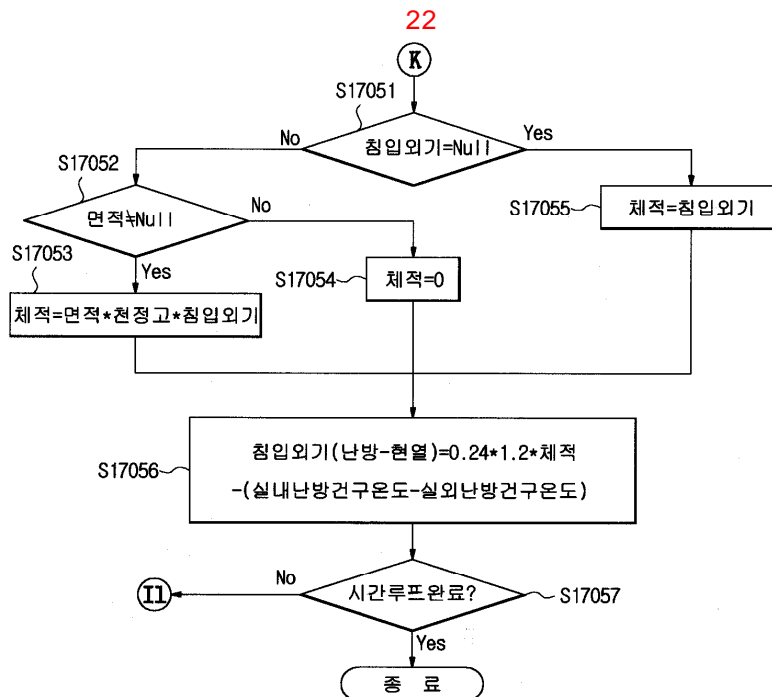
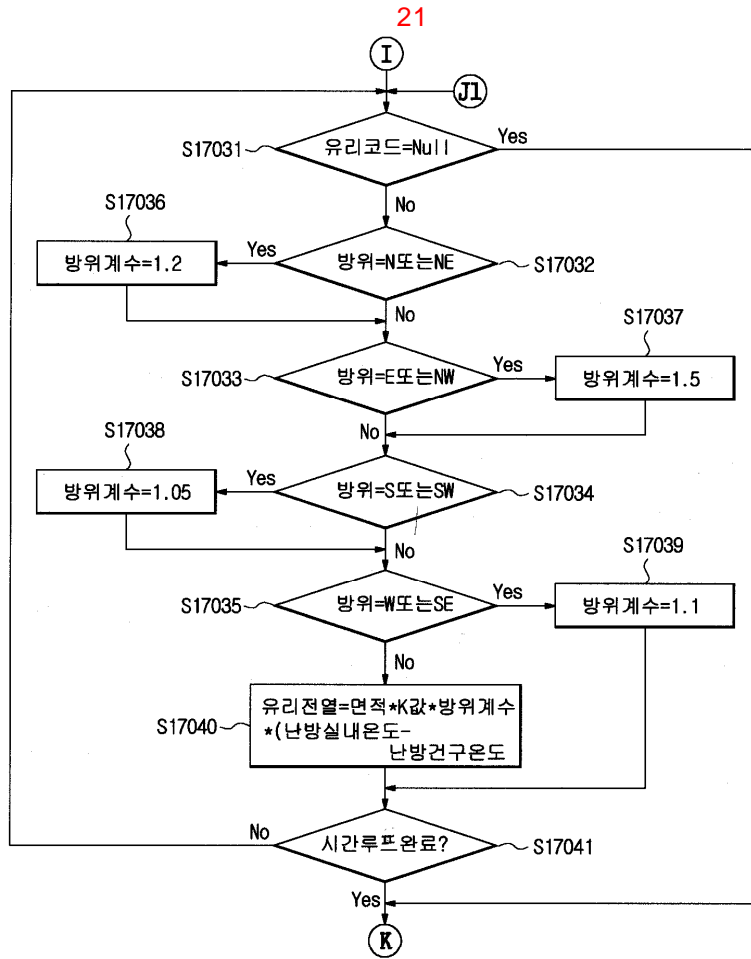


19

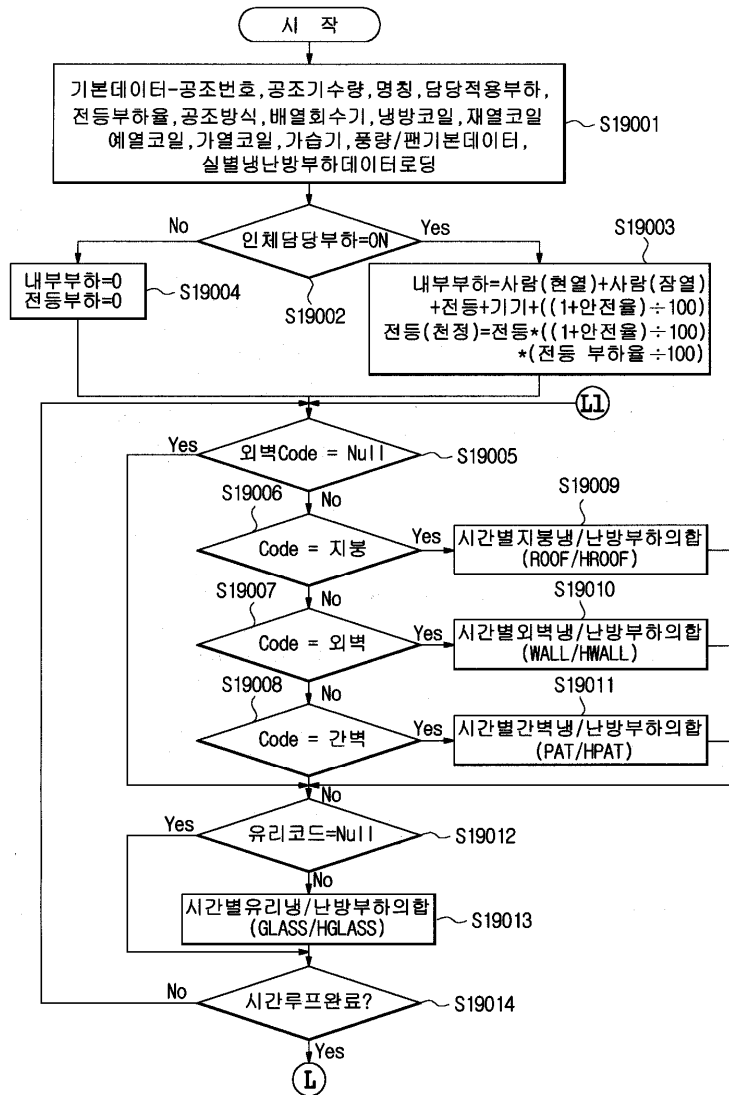


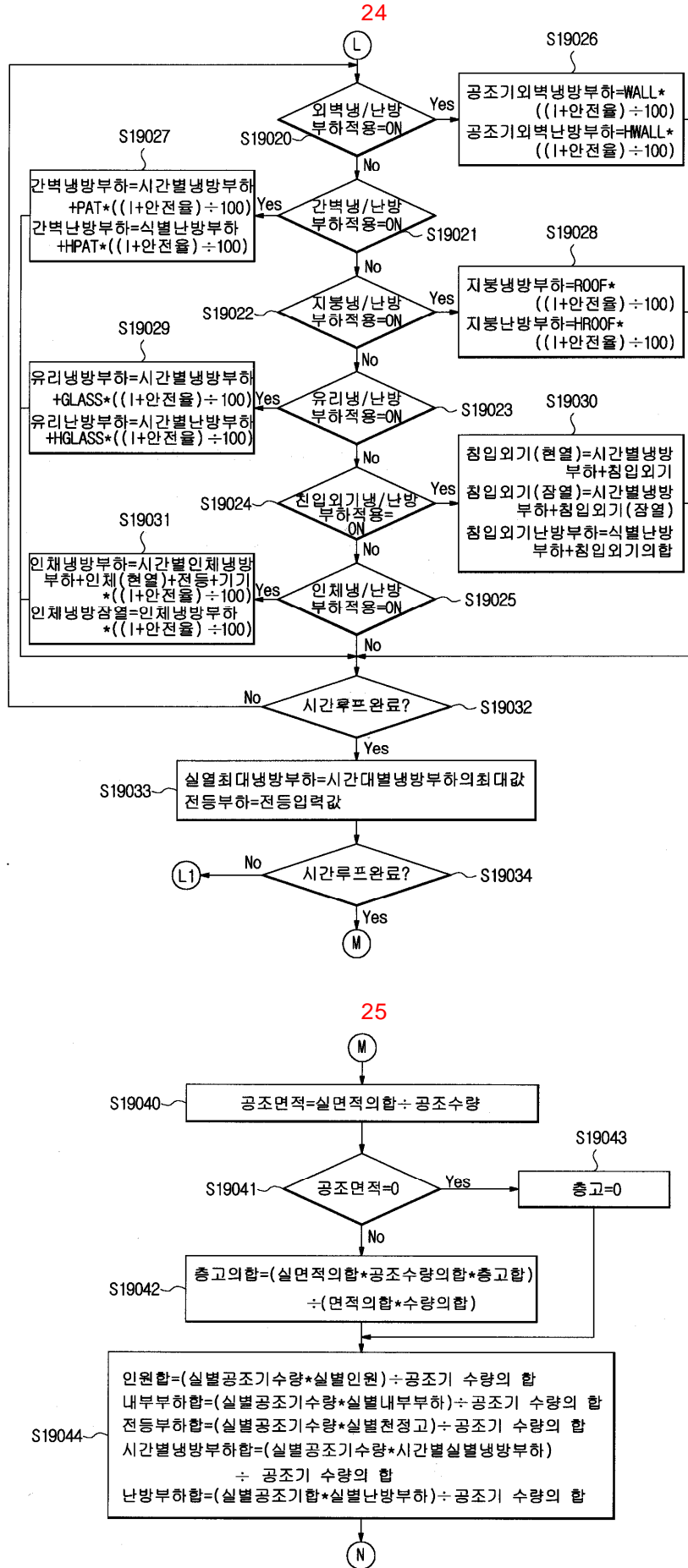
20



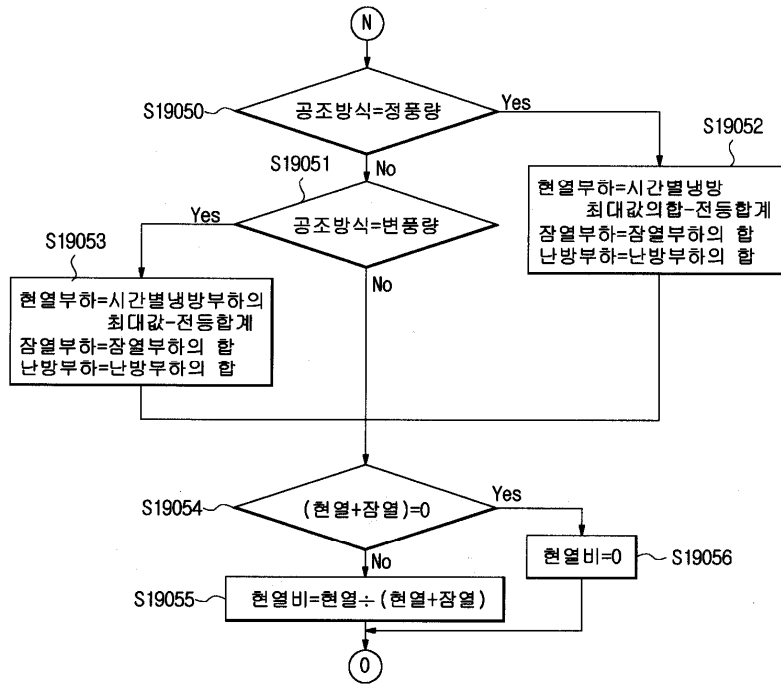


23

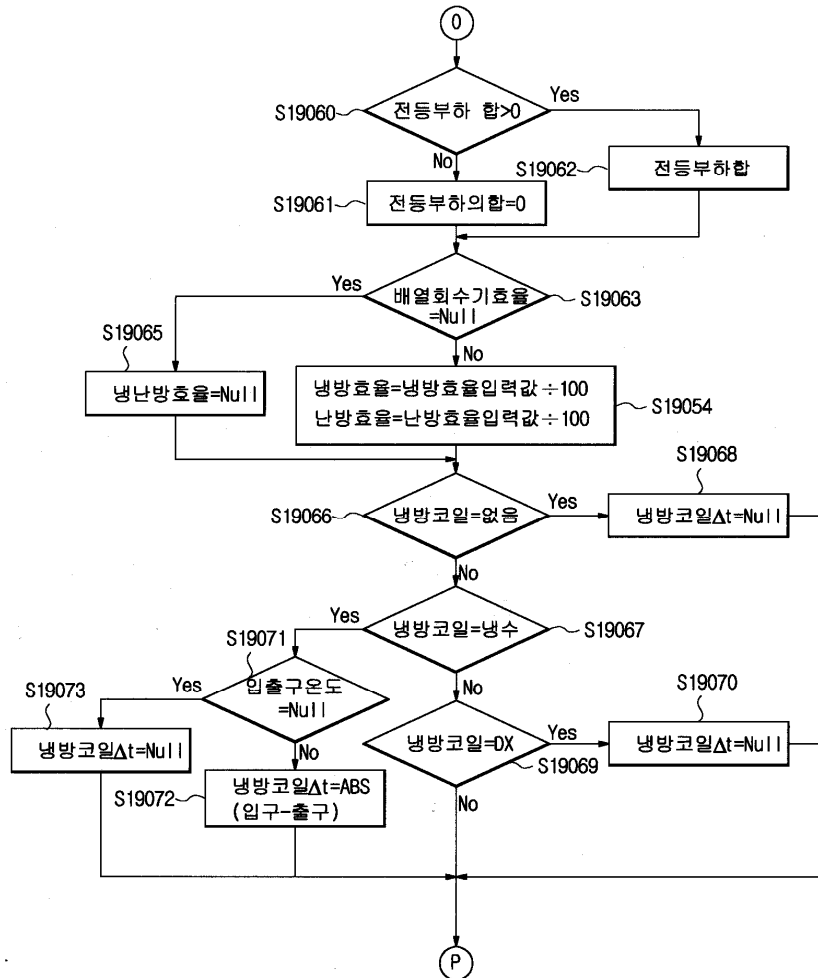


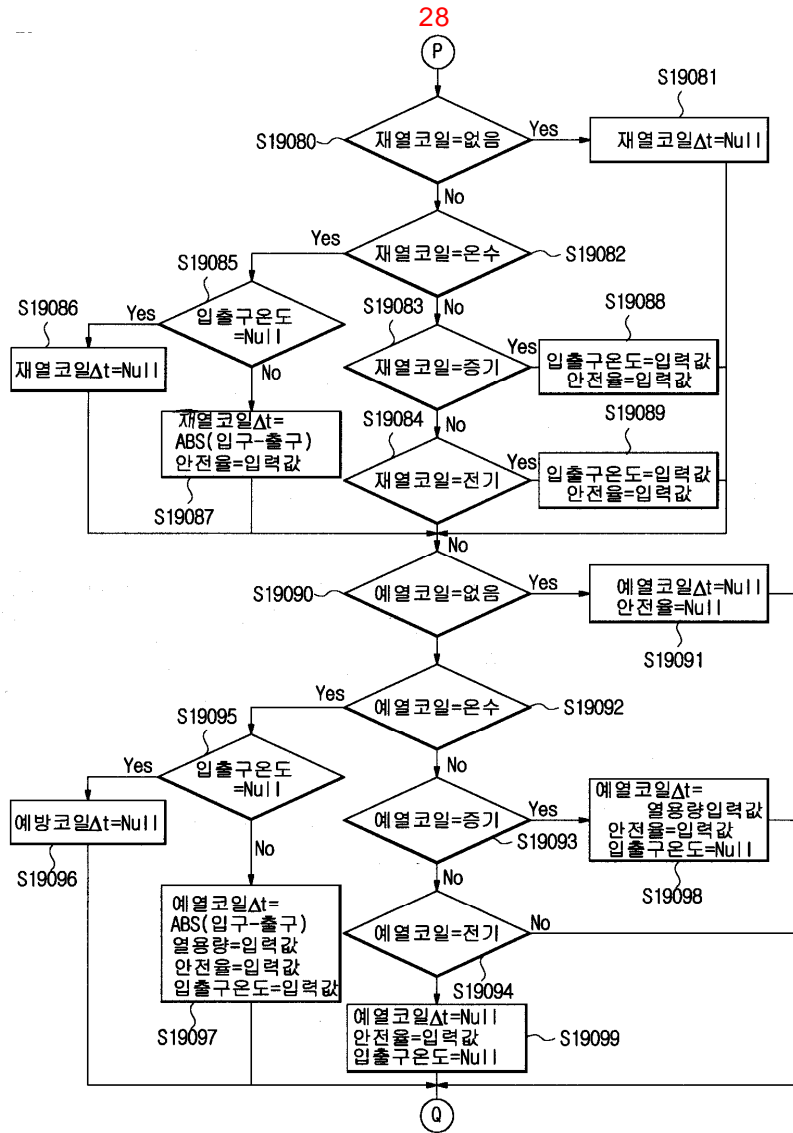


26

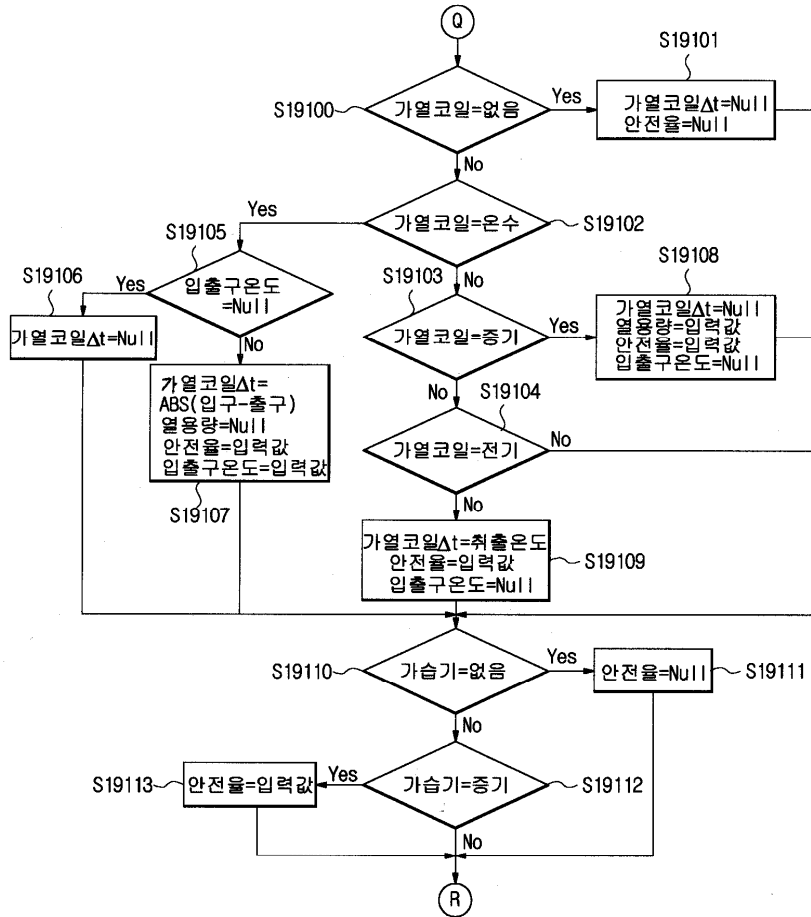


27

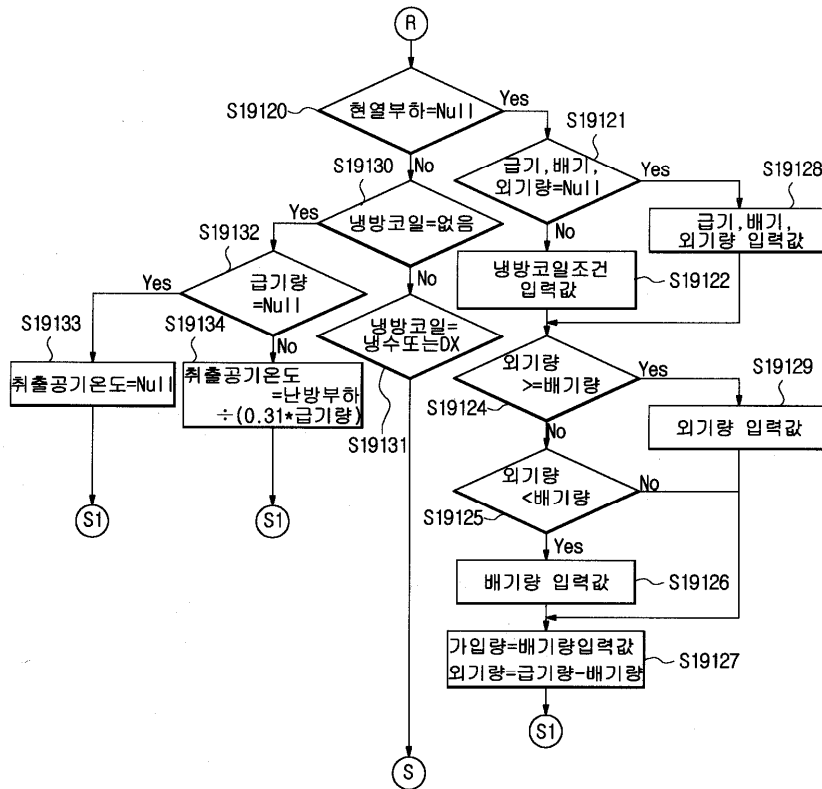




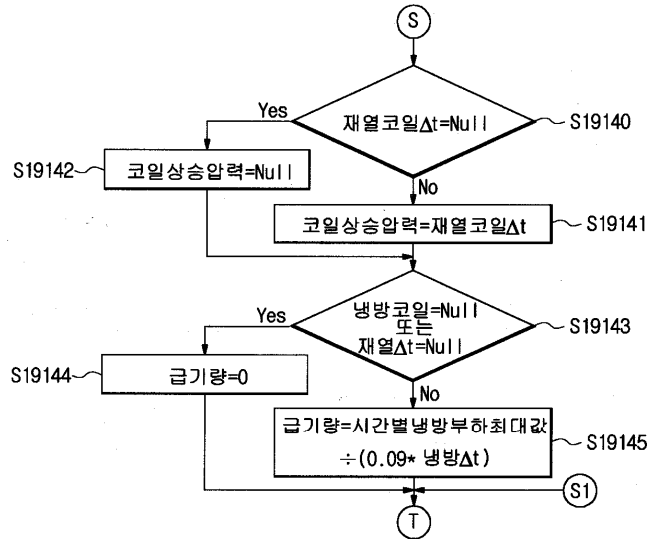
29



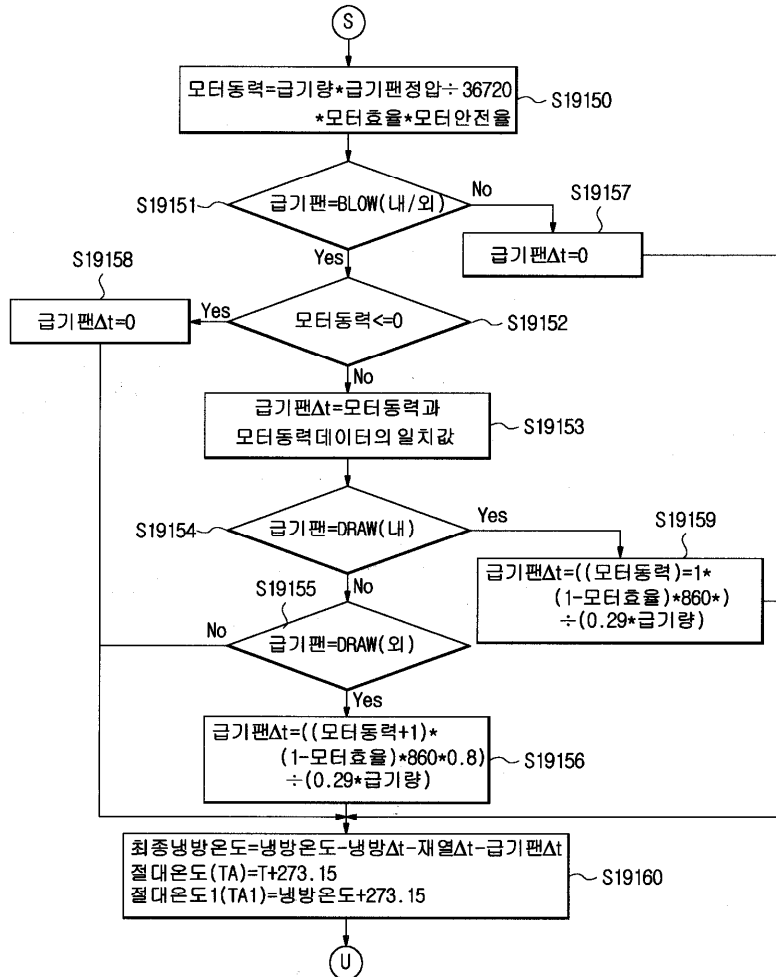
30



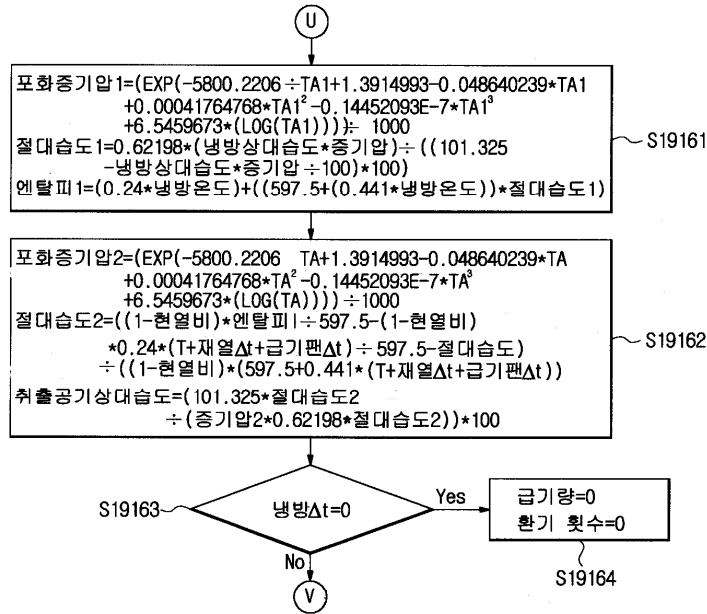
31



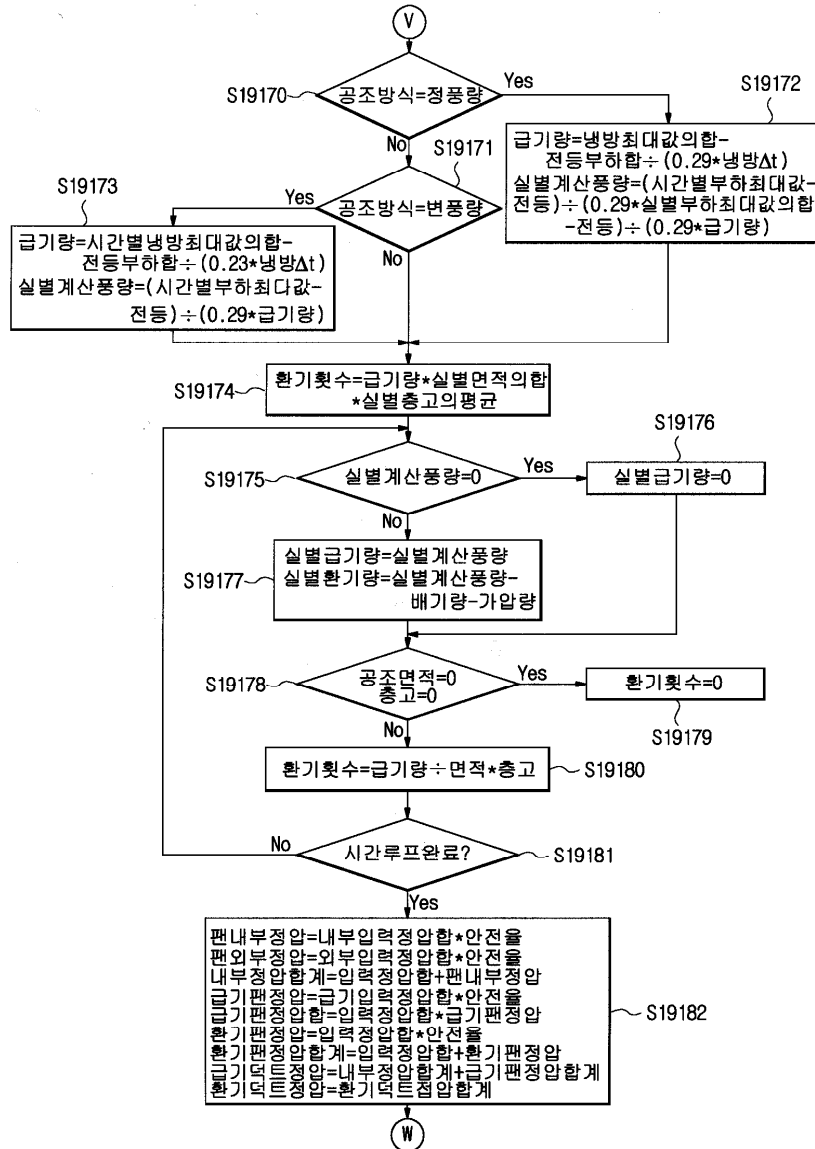
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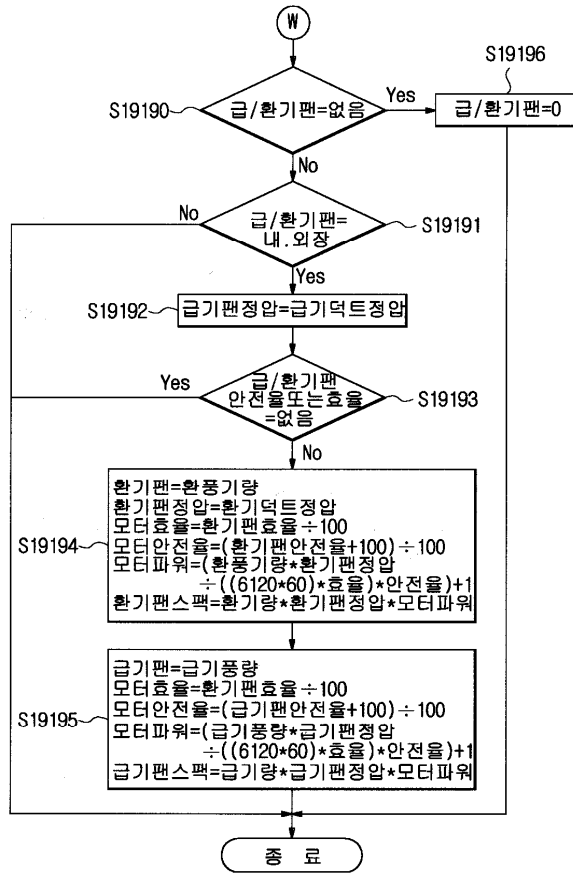
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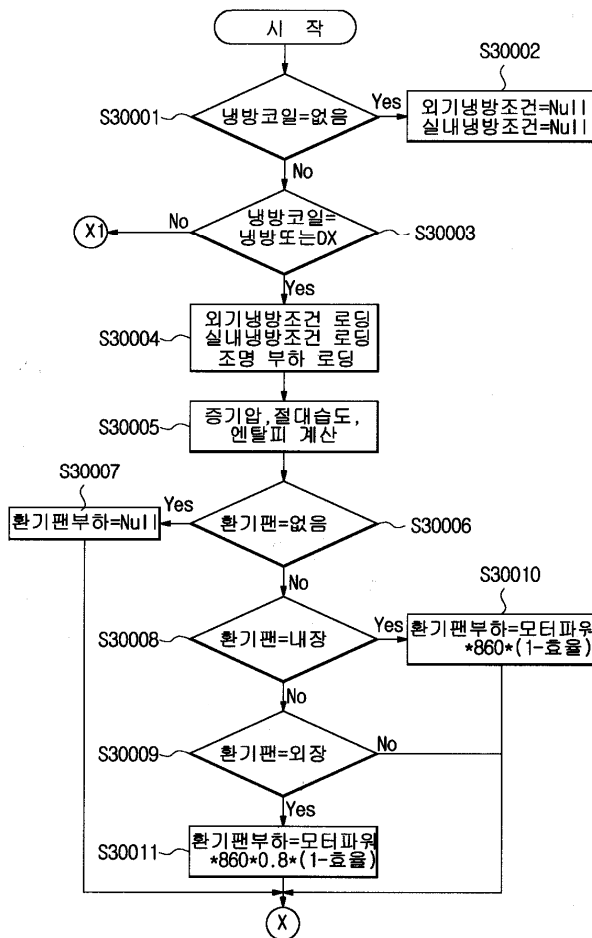
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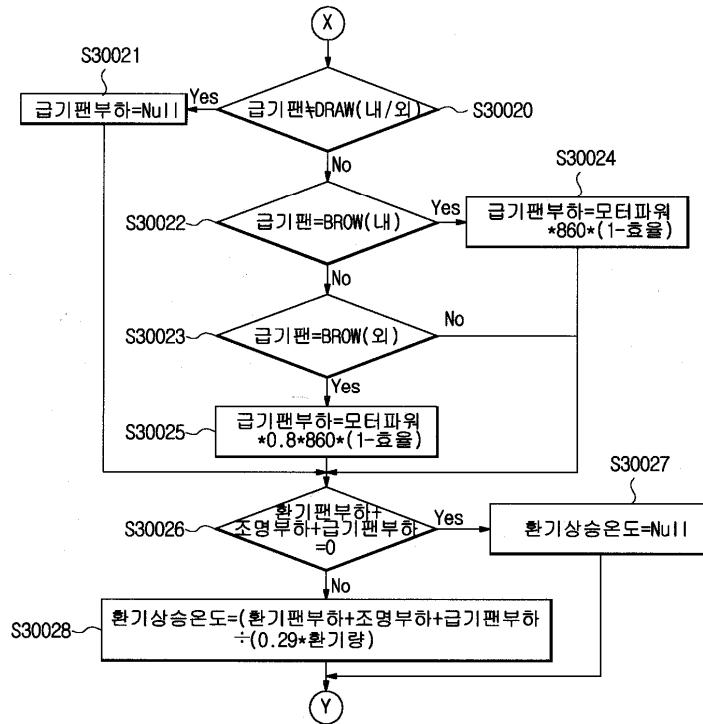
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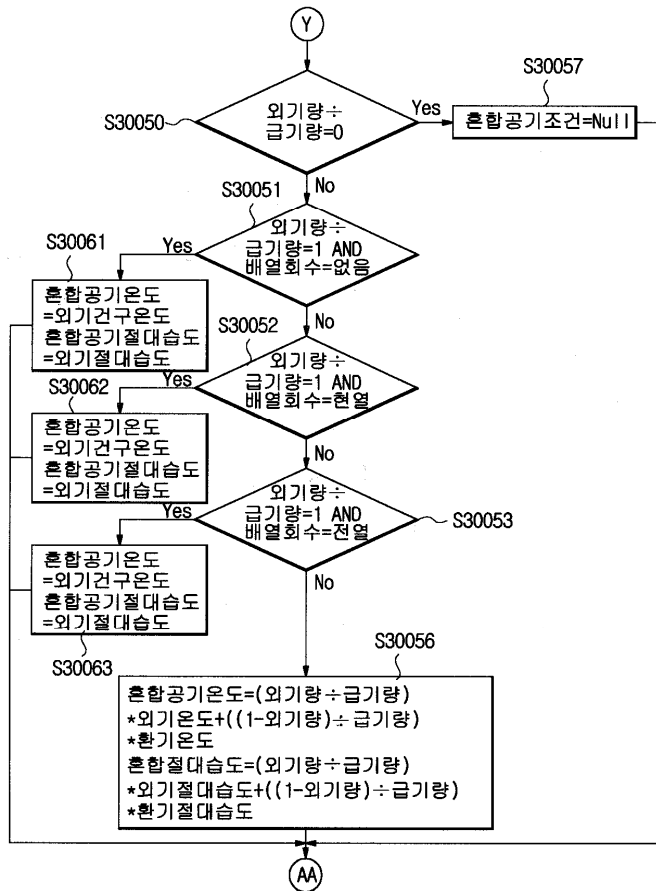
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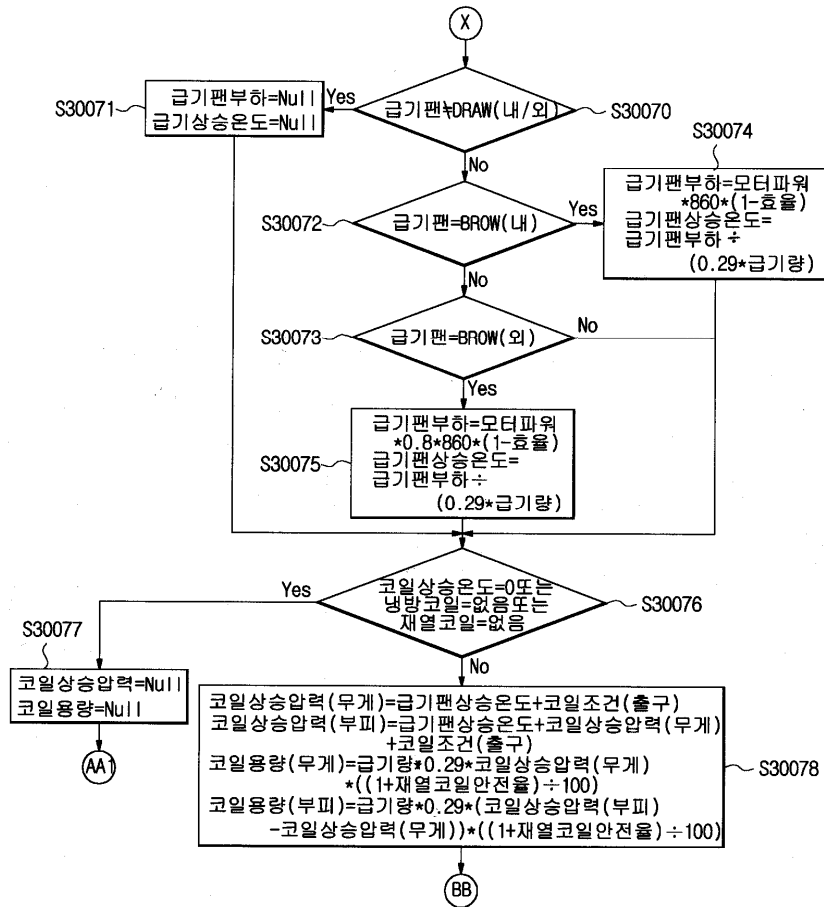
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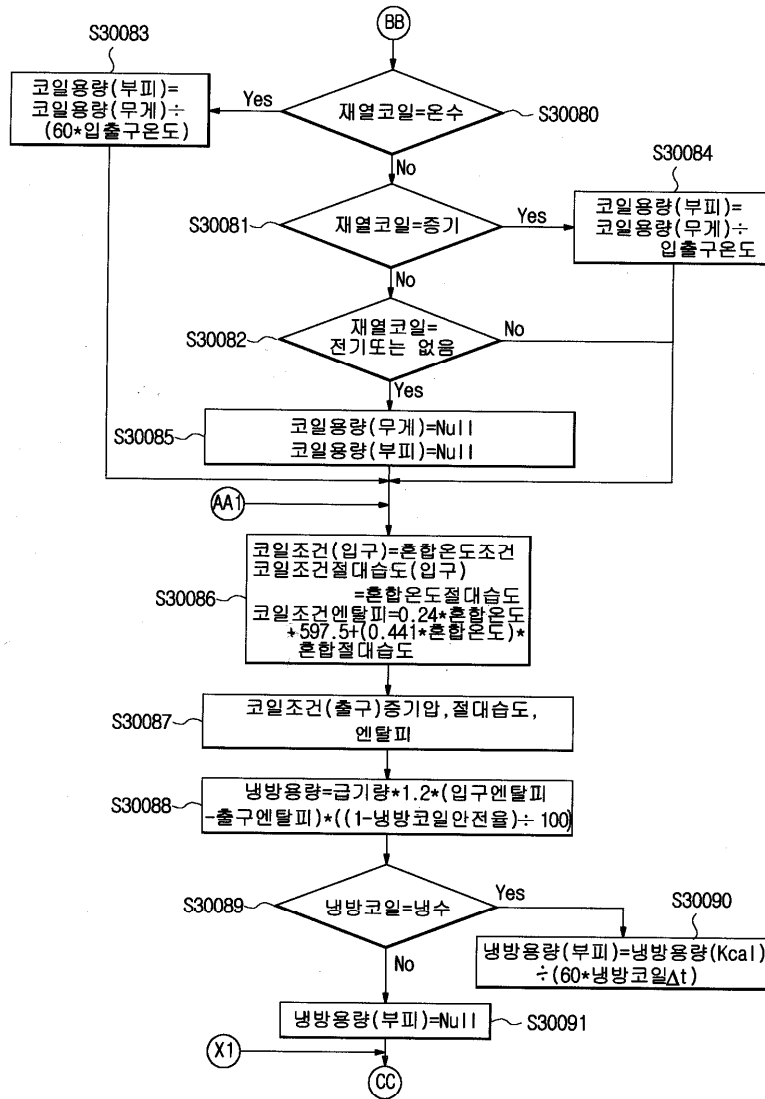
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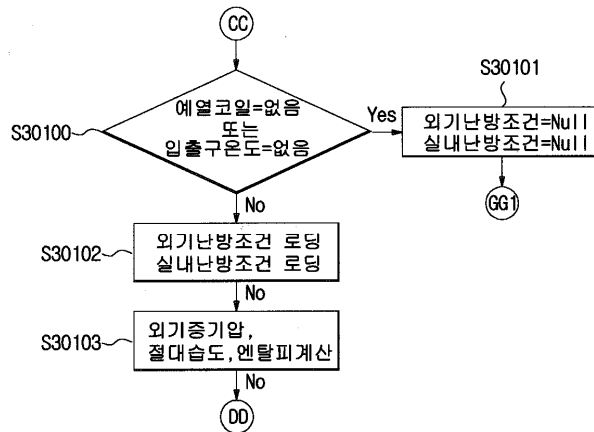
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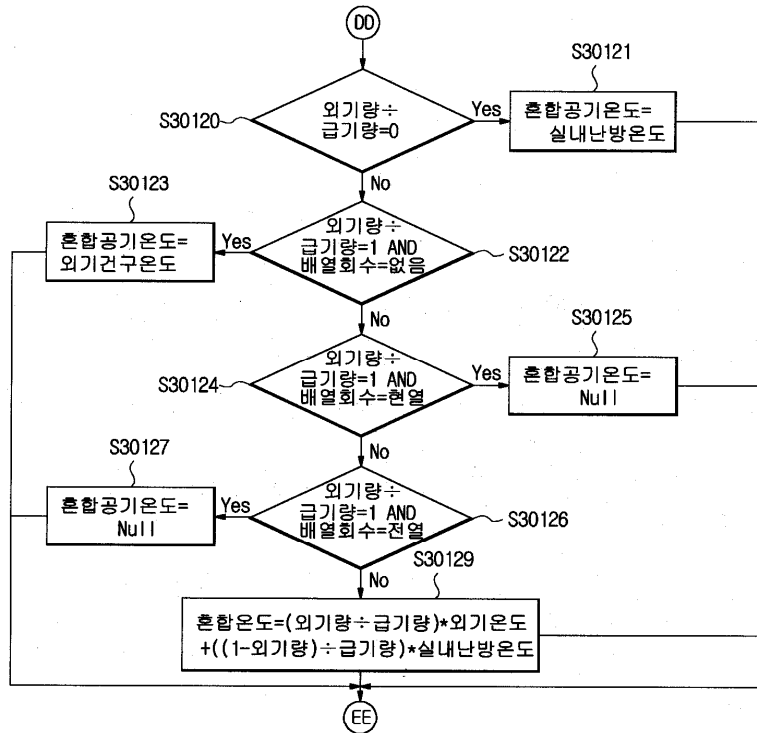
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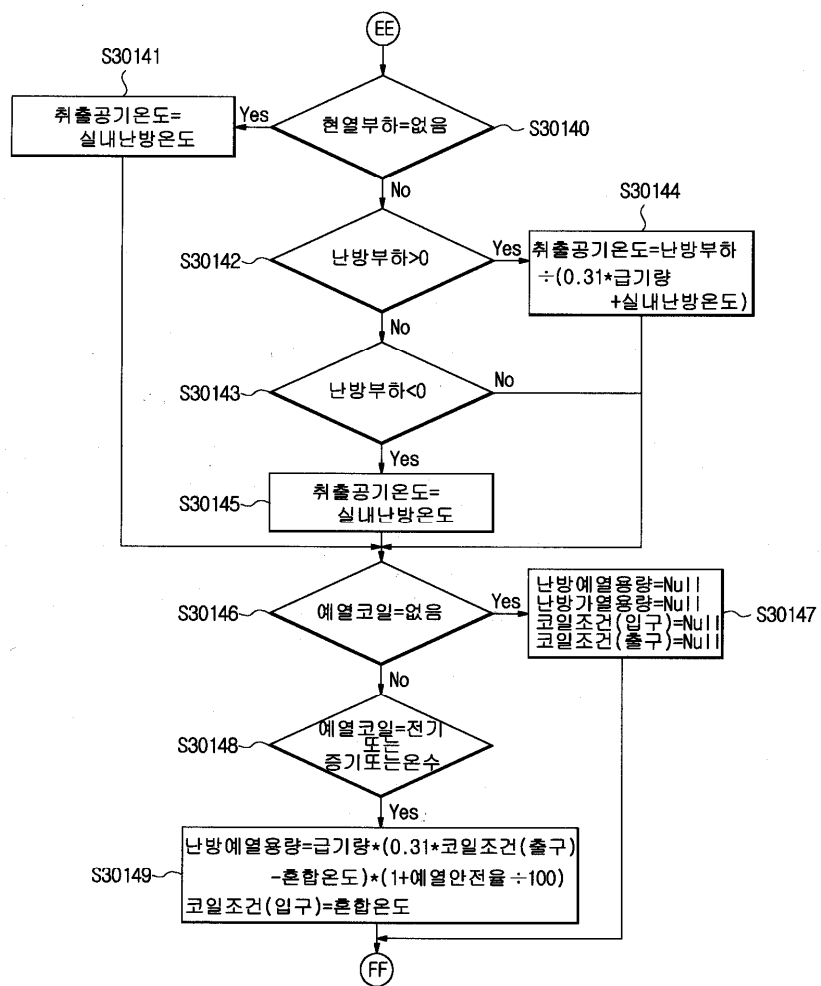
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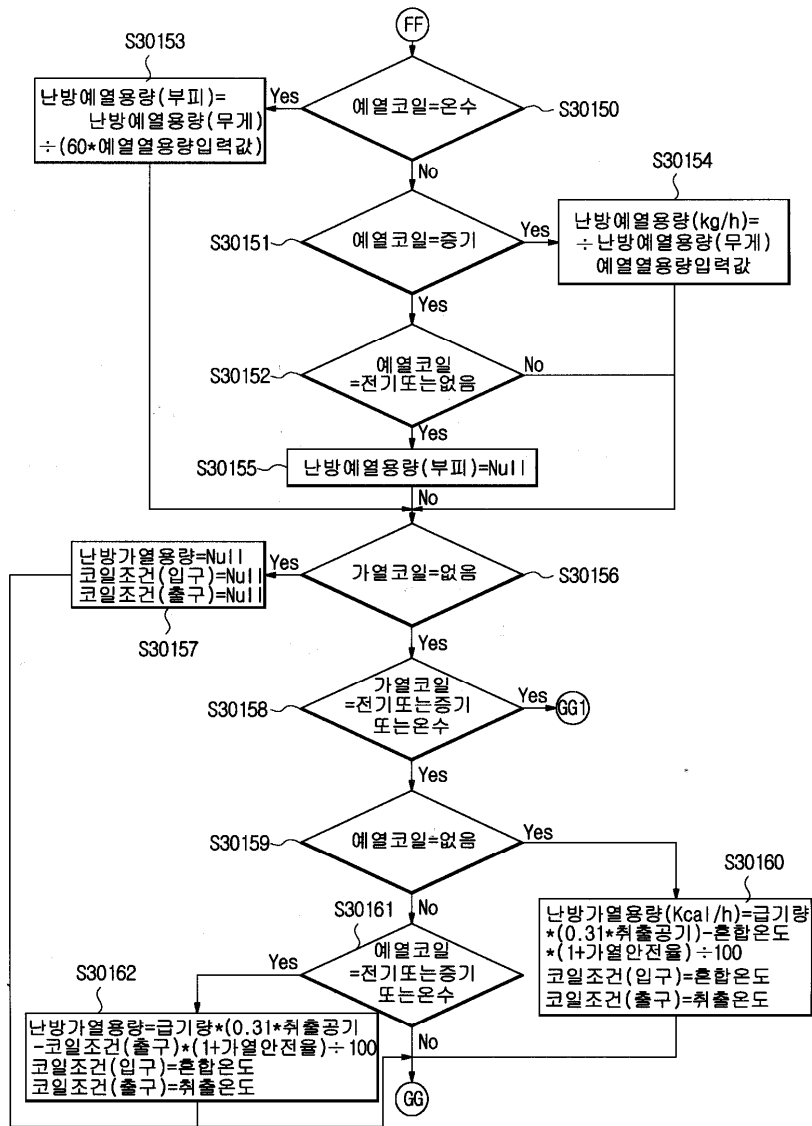
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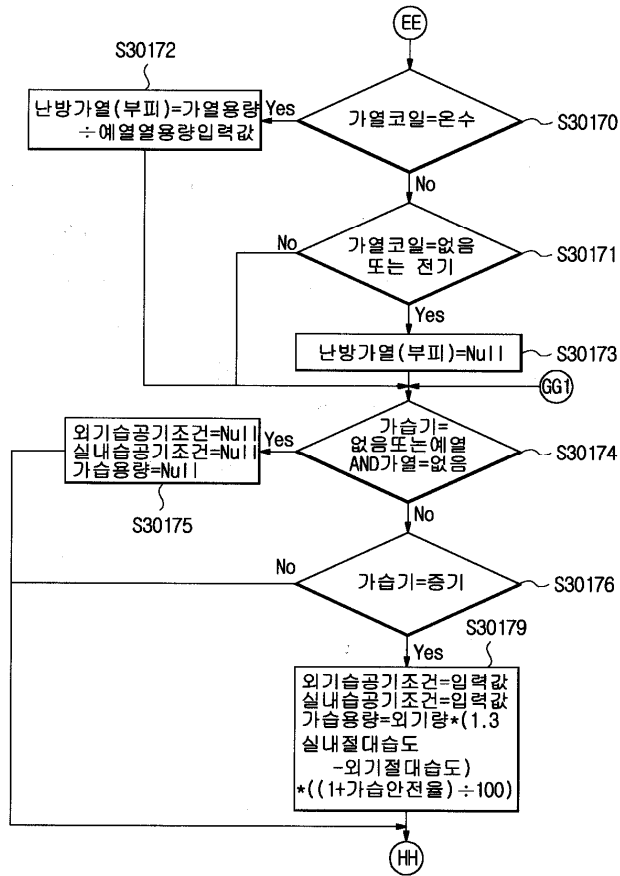
43



44



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46

