

REV. DATE	DESCRIPTION	MESSRS		
		<p style="text-align: center;">GROUP ANNUNCIATOR (SURFACE MOUNTING TYPE) SBGA SERIES</p> <ul style="list-style-type: none"> <li>■ 3 POINT GROUP ANNUNCIATOR (SBGA-3P1WM)</li> <li>■ 6 POINT GROUP ANNUNCIATOR (SBGA-6P1WM)</li> <li>■ 10 POINT GROUP ANNUNCIATOR (SBGA-10P1WM)</li> <li>■ 15 POINT GROUP ANNUNCIATOR (SBGA-15P1WM)</li> <li>■ ELECTRICAL DIMMER LAYOUT</li> <li>■ 2NDARY ALARM SYSTEM APPLICATION DIAGRAM</li> </ul> <p style="text-align: right;">34 SHEETS WITH COVER</p>		
		<p style="text-align: center;"> LUXCO CO., LTD.</p> <p>980-17, Jangrim-dong, Saha-gu, Busan, 604-040, Korea  TEL : +82-51-262-8588  FAX : +82-51-262-8538      <a href="http://www.luxco.co.kr">http://www.luxco.co.kr</a></p>		
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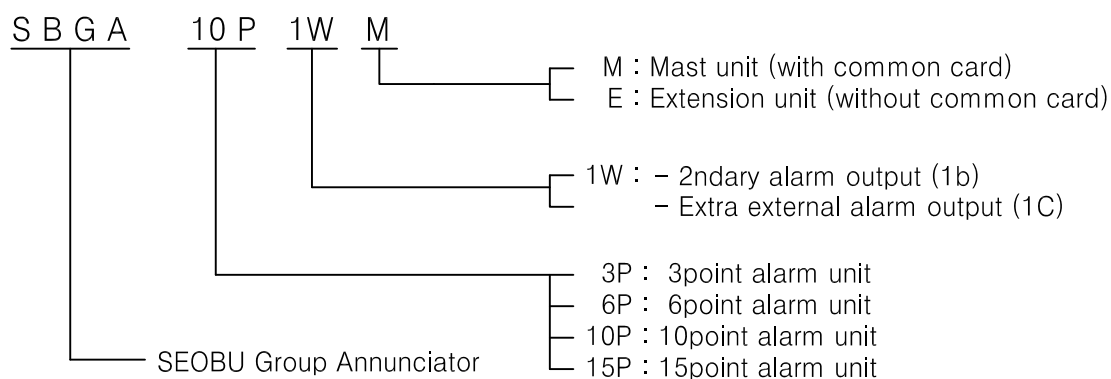
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# 1. GENERAL SPECIFICATIONS

## ■ ORDERING INFORMATION

Type (Model) number nomenclature for SBGA series Group Annunciator



MODEL No.	SBGA 3P1WM	SBGA 3P1WE	SBGA 6P1WM	SBGA 6P1WE	SBGA 10P1WM	SBGA 10P1WE	SBGA 15P1WM	SBGA 15P1WE
COMMON CARD	○	/	○	/	○	/	○	/
ALARM POINT	3		6		10		15	
TOTAL WEIGHT (Kg)	0.65	0.6	0.95	0.9	1.3	1.25	1.8	1.75

## ■ SPECIFICATION TABLE

DISPLAY LAMP	NORMAL	MAXIMUM
	1W	2W
AMBIENT TEMP'	-20°C to 55°C	
ALARM DELAY TIME (Adjustable by volume)	STANDARD	OPTION
	0 ~ 30 sec	0.5 ~ 30 sec
VISUAL LAMP FLICKER TIMING (Adjustable by volume on common card)	1T / 1Sec to 3T / 1Sec	
EXTERNAL CONNECTION	TERMINAL BLOCK	
MOUNTING	SURFACE MOUNTING	
MOTHERBOARD PROTECTION COVER	MATERIAL : PC	
CASE COLOR	IVORY (MAKER STANDARD)	
IP GRADE	IP 22	

## 2. ELECTRICAL SPECIFICATIONS

### ■ SPECIFICATION TABLE

POWER SUPPLY (UNIT TERMINAL VOLTAGE)	MINIMUM	RATING	MAXIMUM	
	DC 19V	DC 24V	DC 32V	
STAND BY LOAD CONSUMPTION	COMMON CARD		ALARM CARD	
	Below 5mA		Below 9mA / point	
INPUT SIGNAL	TYPE	A or B Contact		
	ROOP CURRENT	Below 10mA per each point		
	CABLE LENGTH	Within 1000M (Above 0.75 square)		
OUT PUT SIGNAL	EXTERNAL ALARM SIGNAL	1C dry contact	2A (COS $\phi=1$ )	DC 30V
			0.5A (COS $\phi=0.4$ )	
			1A (COS $\phi=1$ )	AC 110V
			0.5A (COS $\phi=0.4$ )	
	OUTPUT CURRENT FOR VISUAL LAMP	NORMAL	MAXIMUM	
	80mA	150mA		
2NDARY ALARM	"1b" dry contact output for 2.5 sec			
INSULATION RESISTANCE	LIVE PARTS TO ENCLOSURE : More than 200 megger ohms.			
DLELECTRIC STRENGTH	1.5KV between "P" or "N" and enclosure for 1min			
VIBRATION	The annunciator is so constructed that it will withstand applications of the following vibration for 2 hours in each X,Y and Z directions: - for vibration frequencies from 2 to 13.2Hz, 2mm double amplitude, for vibration frequencies 13.2 to 100Hz			

### ■ LOAD CONSUMPTION TABLE (POWER SUPPLY : DC 24V)

MODEL	SBGA - 3P1WM	SBGA - 6P1WM	SBGA - 10P1WM	SBGA - 15P1WM
TOTAL STAND BY CURRENT	Below 35mA	Below 65mA	Below 110mA	Below 160mA
TOTAL ALARM 'ON' CURRENT with VISUAL LAMP 1Watt	Below 0.5 A	Below 0.9 A	Below 1.5 A	Below 2.3 A

### 3. STANDARD TYPE CONNECTION FUNCTION CHARACTERISTICS

#### ■ STANDARD TYPE CONNECTION FUNCTION CHARACTERISTICS

##### A. DIMMER TYPE

- A-1) Standard type includes dimmer on the "P" side of power source which controls brightness of extension lamp of the annunciator unit. This is the most general and well-known type.
- A-2) The defect of this type is, if the brightness of lamp was set to very low degree before outputting alarm signal with lamp flickers, it is hard to distinguish the output of alarm lamp. And when the brightness of environment is high or operator is at long distance, it becomes more indiscernible.
- A-3) To use without dimmer, please use wire jump according to the attached drawing.

##### B. Aux. FUSE

- B-1) The recommendation on installing fuses individually on common lines of each lamps is to prevent operation failure of annunciator unit from the lamp short and other causes.  
(Unit includes alarm led lamps to itself)
- B-2) Each alarm card has protection circuit of temporary lamp short under 1 sec. If the lamp short occurs over a few seconds, only the lamp output transistor will be damaged, and alarm cards will not be affected.

##### C. SECONDARY ALARM (Secondary transmission alarm)

- C-1) Each alarm card includes secondary alarm function to transmit signals to other systems. If the common card on mast unit outputs alarm signal of dry "B" contact for 1 sec, the secondary alarm will be raised continuously (open state). And if the further alarm occurs, it will be reset and transmit alarm again.

##### D. EXTENSION ALARM (Third transmission alarm)

- D-1) When the alarm occurs, each alarm card outputs steady state contact signal of relay with buzzer sounding for further extensions. With this relay contact, operator can configure additional circuit of AC 100V/220V or DC 24V, and can also operate lamps of bigger capacities.

## 4. "DN" TYPE CONNECTION FUNCTION CHARACTERISTICS

### ■ "DN" (Dimmer Negative) TYPE CONNECTION FUNCTION CHARACTERISTICS

#### A. DIMMER TYPE

A-1) DN type includes dimmer connected to the "N" side of power source and the T.B #DN of mast unit.

This is the newest type which is applied to recent systems.

A-2) This is the complemented type of A-2) of the standard type.

While flickering, constant voltage is supplied to the lamps without dimmer effect to make lamps bright.

When after the flickering stops and become steady state,

the intensity of light changes into the set degree of dimmer.

Thus, when alarm occurs lamps light up by constant voltage and is discernible at long distance. After the flickering is stopped by operator, lamps changes into dimmer affected steady state .

A-3) To use without dimmer, please use wire jump according to the attached drawing.

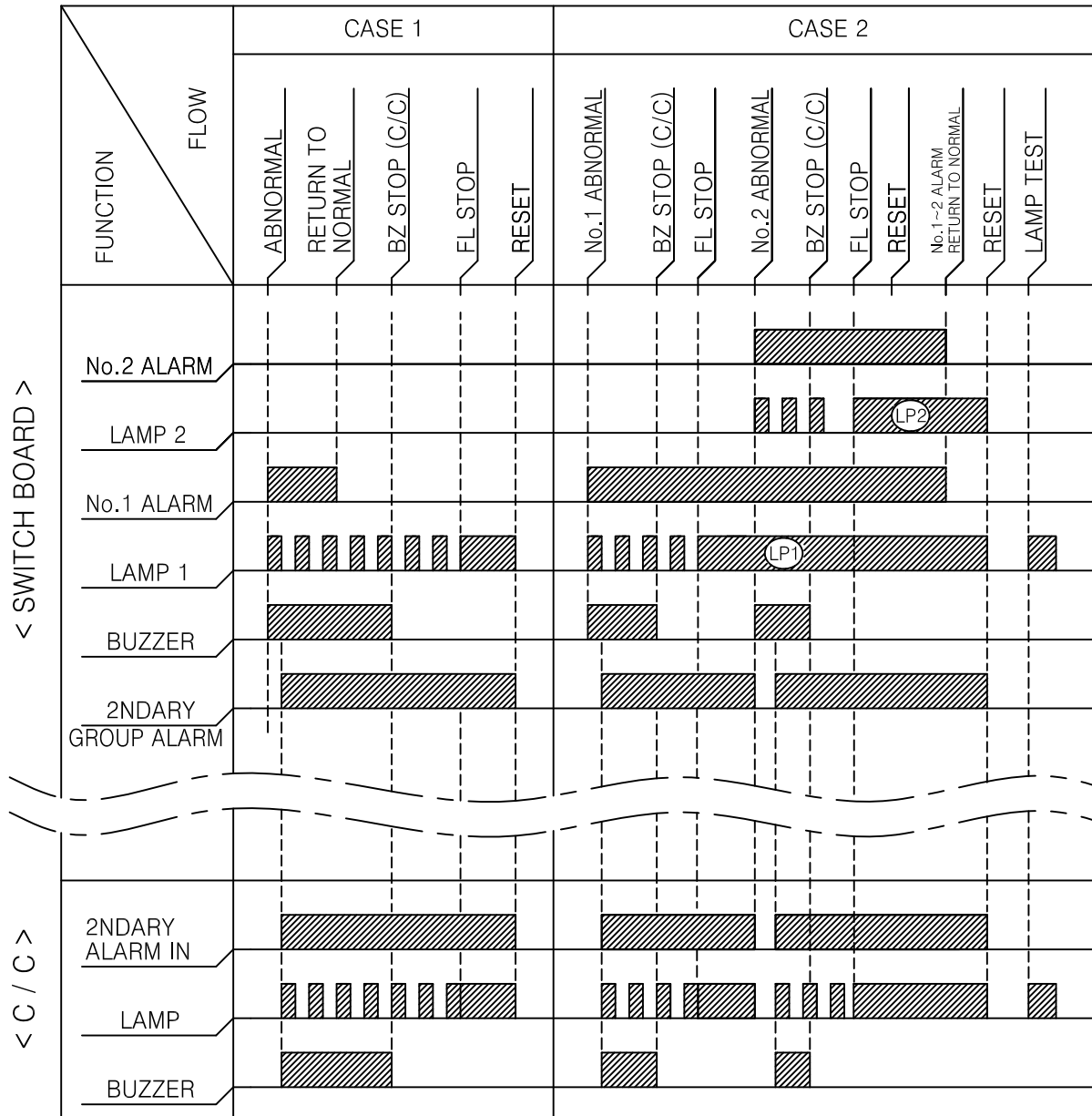
#### B. Aux. FUSE

#### C. SECONDARY ALARM (Secondary transmission alarm)

#### D. EXTENSION ALARM (Third extension alarm)

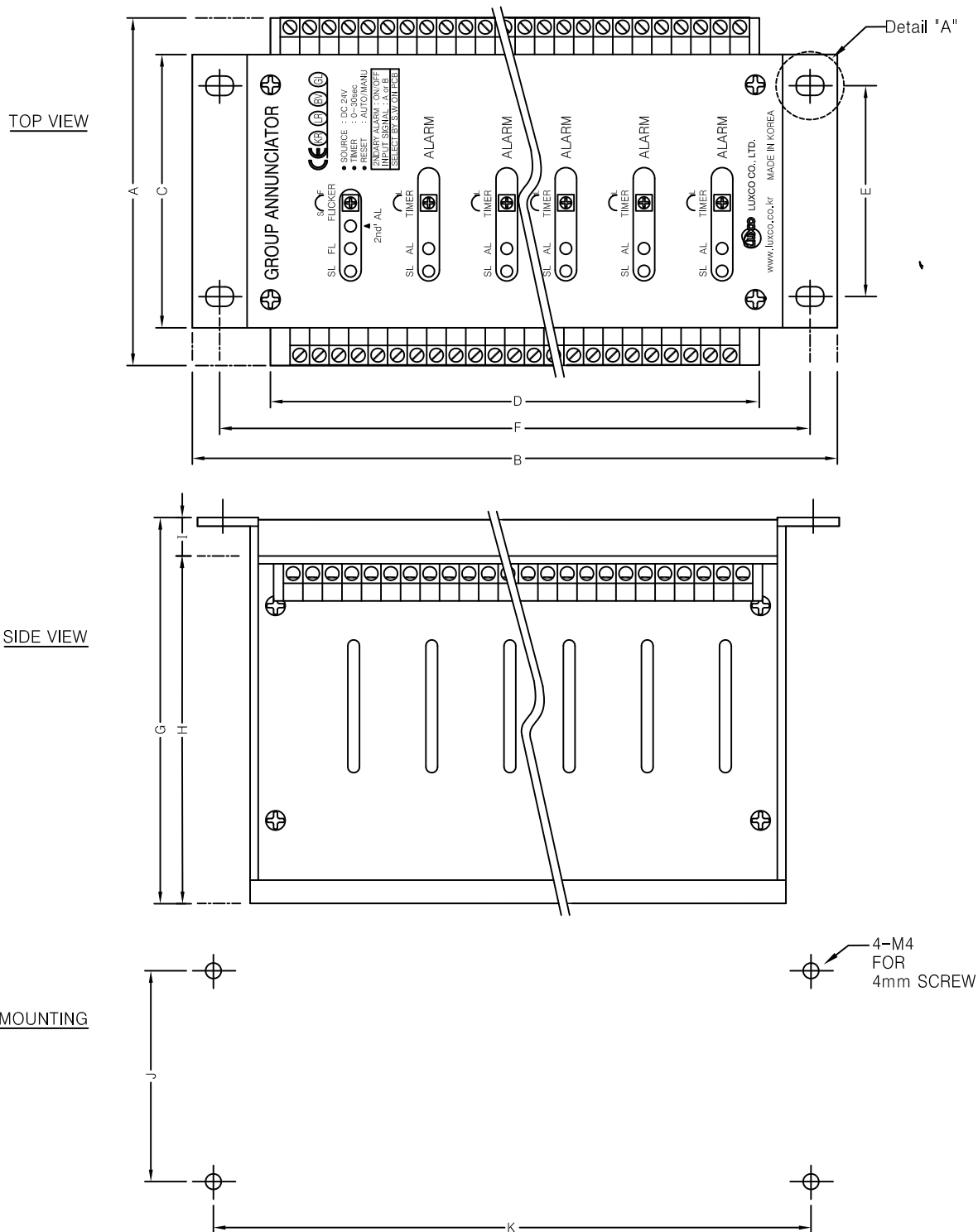
} Same as  
standard type connection

# 5. FUNCTION FLOW CHART



## 6. DIMENSIONS & TABLE

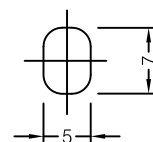
### ■ DIMENSIONS



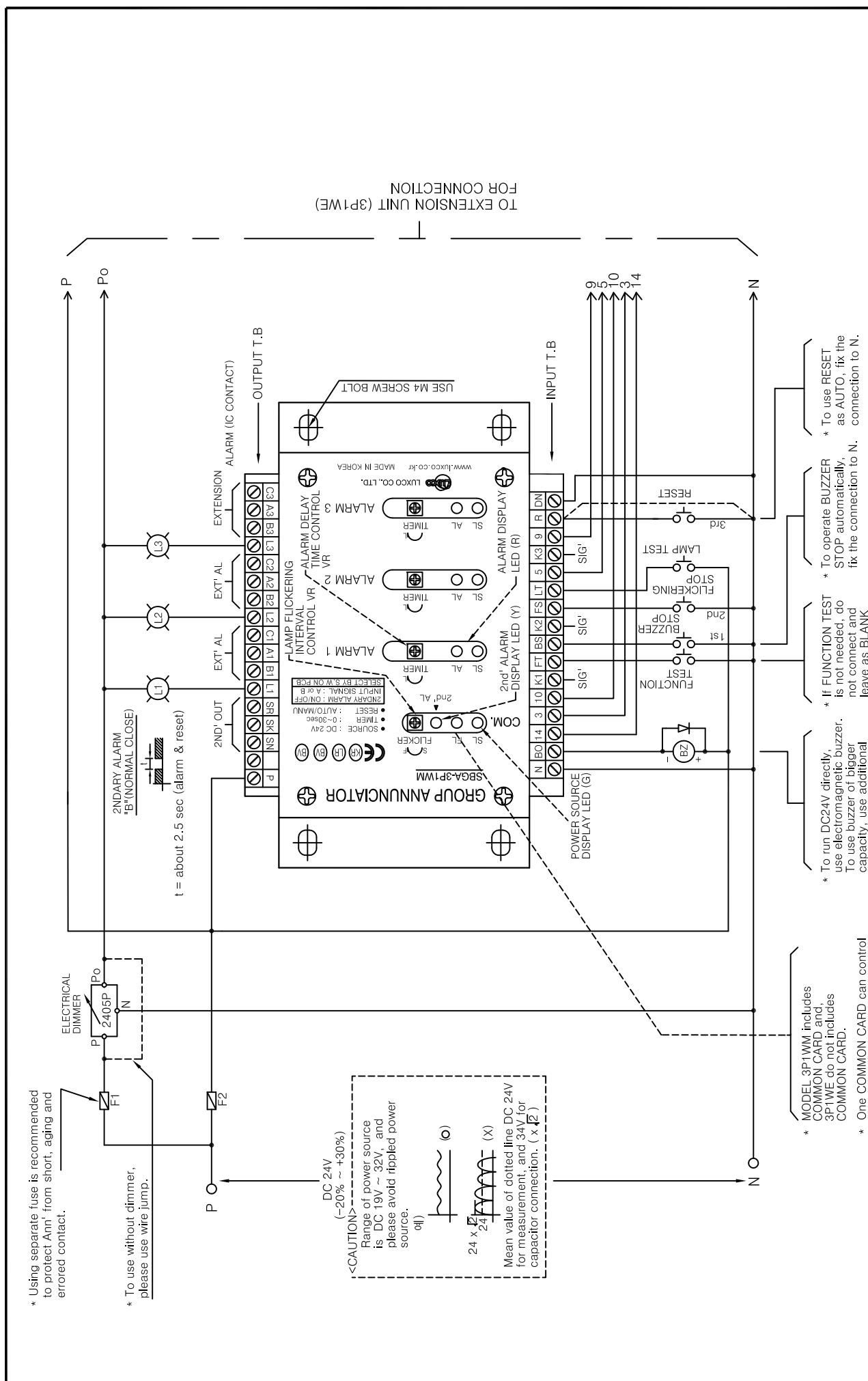
### ■ DIMENSION TABLE

SYMBOL MODEL	DIMENSION (m/m)										
	A	B	C	D	E	F	G	H	I	J	K
3P1WM & E	94	130	70	90	54	116	97	87	10	54	116
6P1WM & E	94	190	70	150	54	176	97	87	10	54	176
10P1WM & E	94	270	70	230	54	256	97	87	10	54	256
15P1WM & E	94	370	70	330	54	356	97	87	10	54	356

Detail "A"  
(Unit in mm)

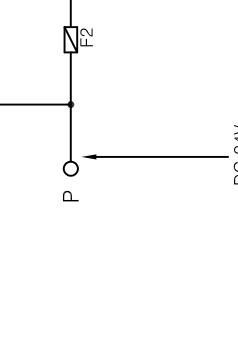






\* Using separate fuse is recommended to protect Ann' from short, aging and errored contact.

\* To use without dimmer, please use wire jump.



<CAUTION>  
DC 24V (-20% ~ +30%)  
Range of power source is DC 19V ~ 32V, and please avoid rippled power source.

24 x 24mm (X)

Mean value of dotted line DC 24V for measurement, and 34V for capacitor connection. ( x  $\sqrt{2}$  )

\* MODEL 3P1WM includes COMMON CARD and, 3P1WE do not include COMMON CARD.

\* One COMMON CARD can control maximum ALARM 150 POINT and, GROUP (in case of using 3P1W MULTIUNIT) should include only one COMMON CARD.

\* To run DC24V directly, use electromagnetic buzzer. To use buzzer of bigger capacity, use additional relay and power source.

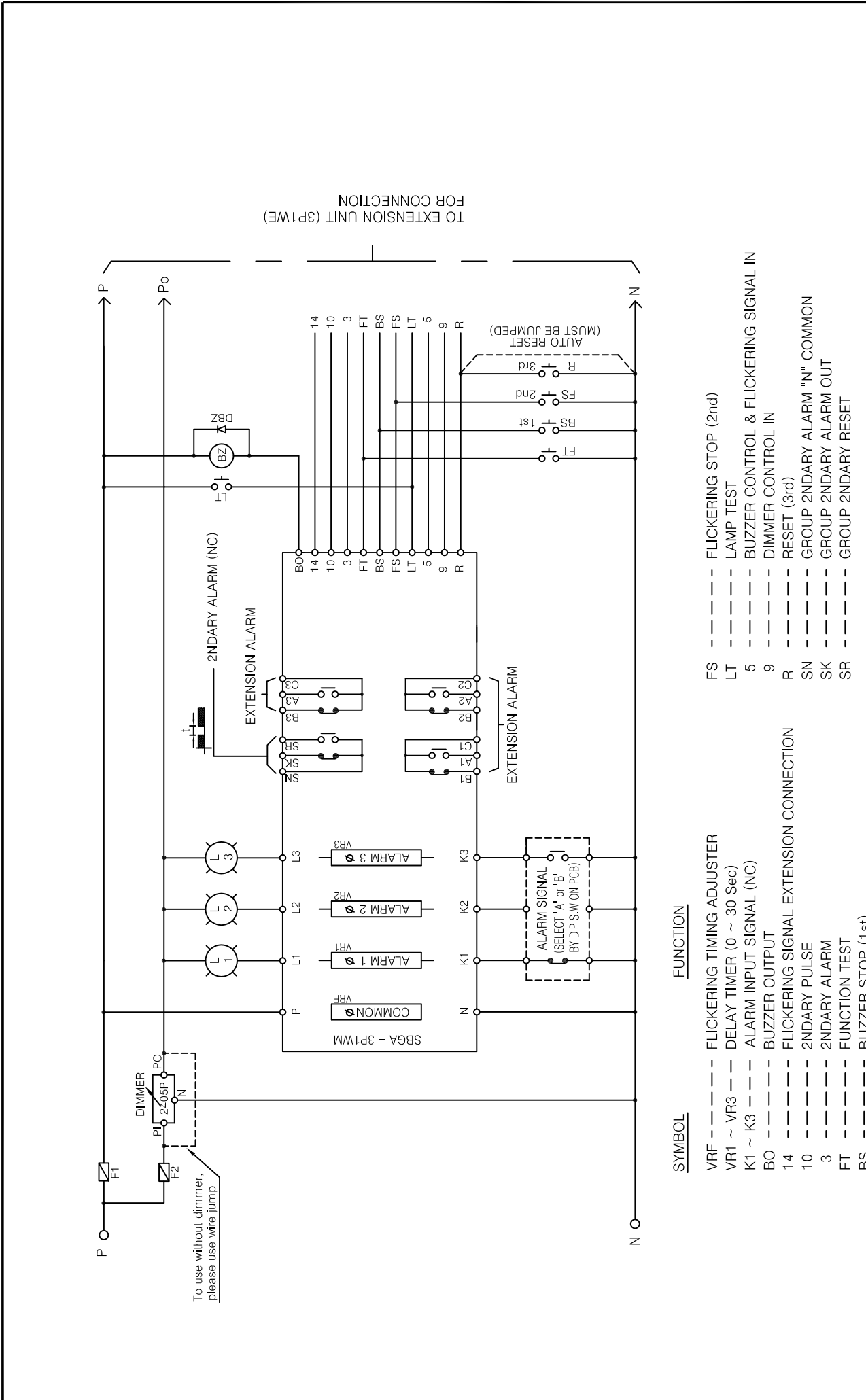
\* If FUNCTION TEST is not needed, do not connect and leave as BLANK state.

\* To operate BUZZER STOP automatically, fix the connection to N.

\* To use RESET as AUTO, fix the connection to N.

FOR CONNECTION TO EXTENSION UNIT (3P1WE)

7-1.1 STANDARD TYPE 3POINT GROUP ANNUNCIATOR  
OUT SIDE DESCRIPTION

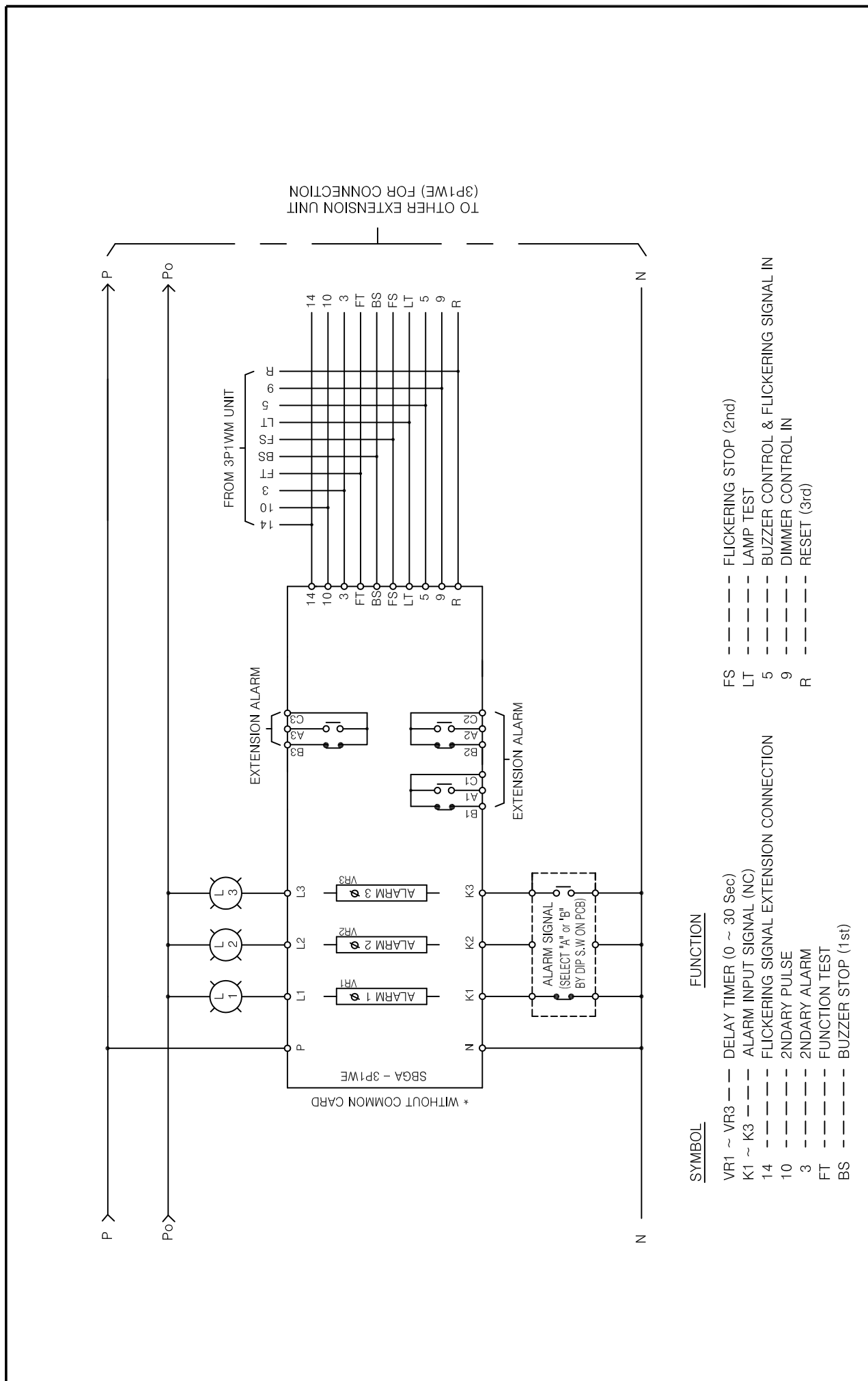


TO EXTENSION UNIT (3P1WE)  
FOR CONNECTION

To use without dimmer,  
please use wire jump

SYMBOL	FUNCTION
VRF	FLICKERING TIMING ADJUSTER
VR1 ~ VR3	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K3	ALARM INPUT SIGNAL (NC)
BO	BUZZER OUTPUT
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
SN	GROUP 2NDARY ALARM "N" COMMON
SK	GROUP 2NDARY ALARM OUT
SR	GROUP 2NDARY RESET

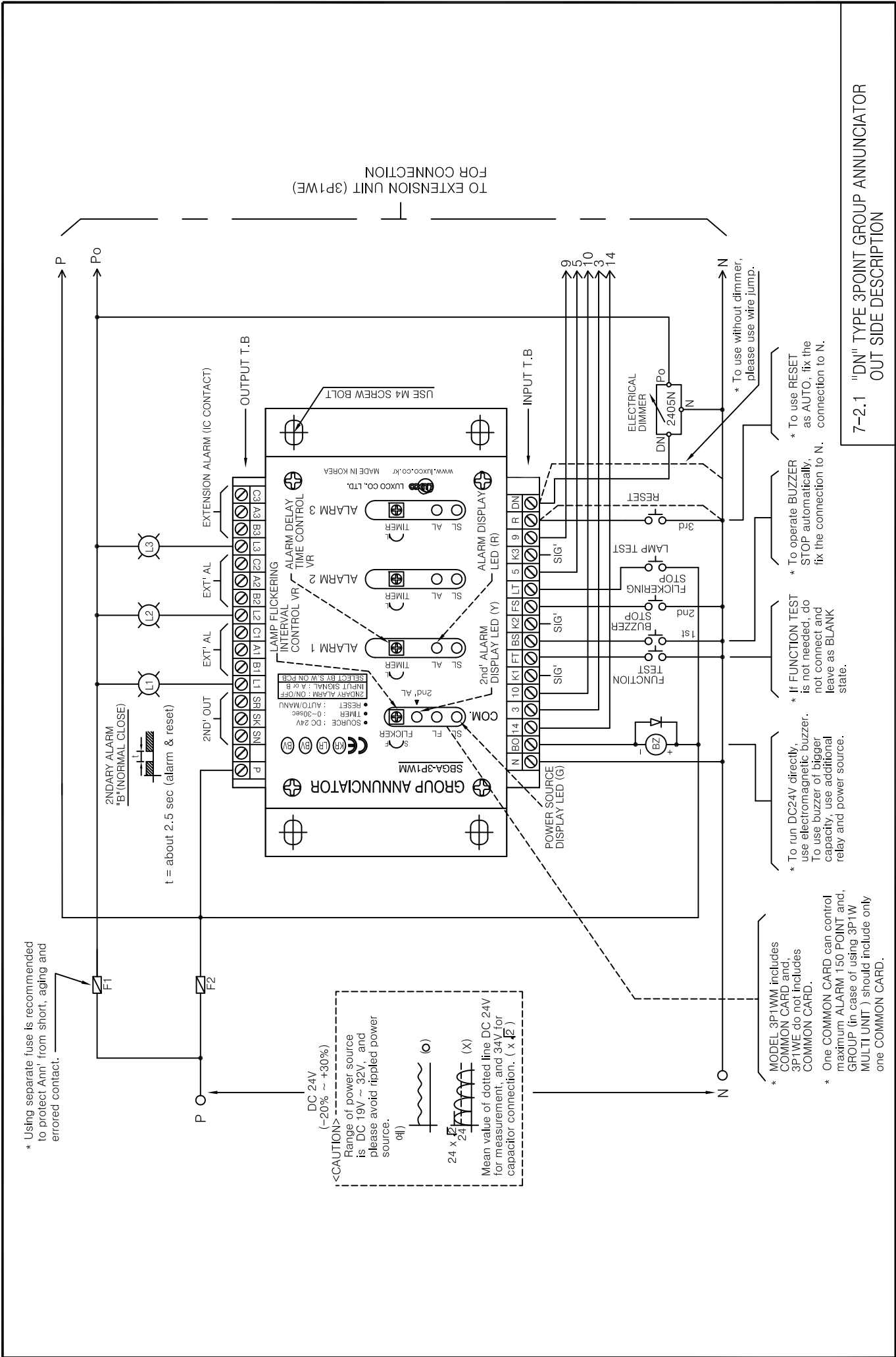
7-1.2 STANDARD TYPE 3POINT GROUP ANNUNCIATOR  
MAST UNIT CONNECTION DIAGRAM



TO OTHER EXTENSION UNIT (3P1WE) FOR CONNECTION

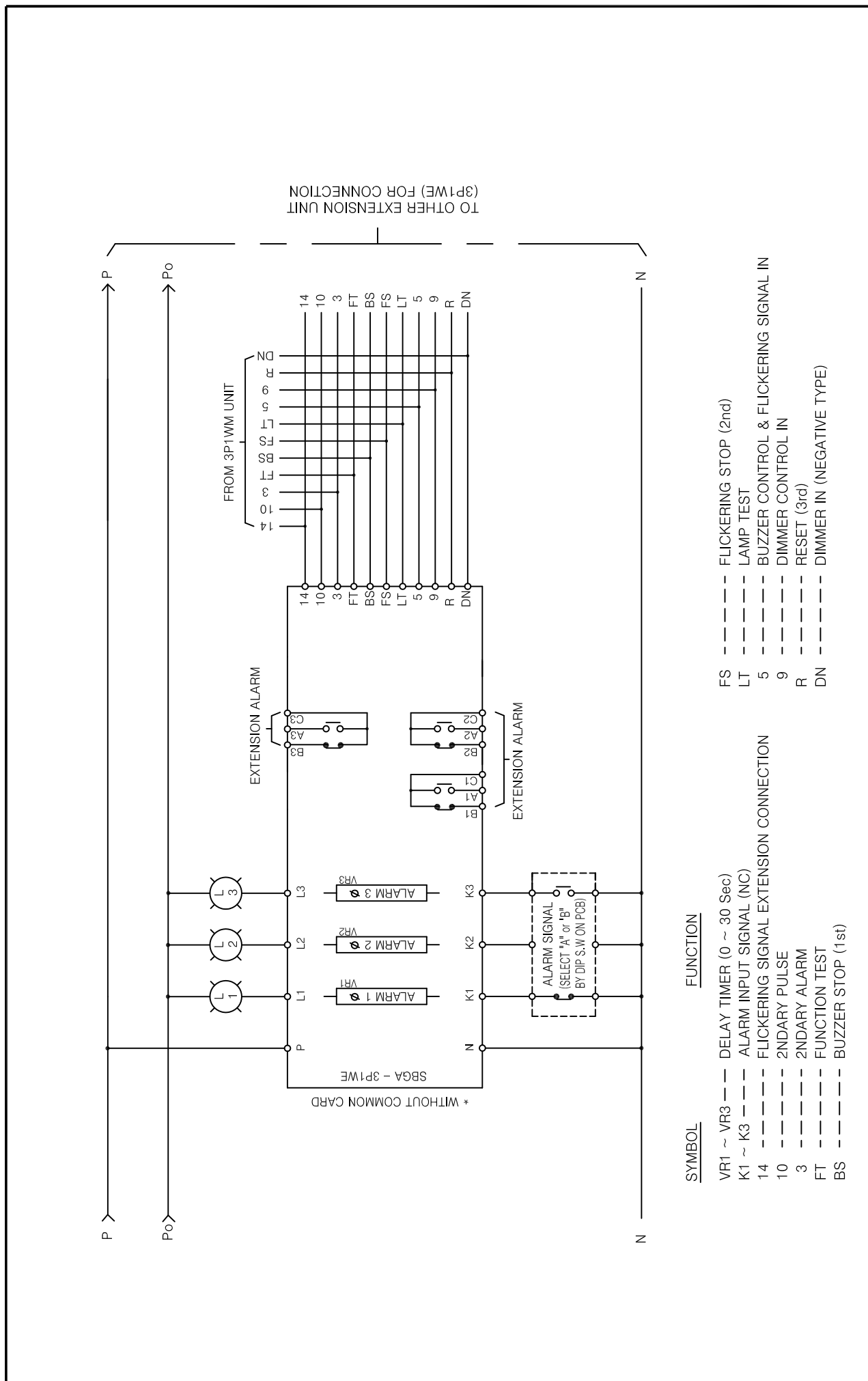
SYMBOL	FUNCTION
VR1 ~ VR3	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K3	ALARM INPUT SIGNAL (NC)
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)

7-1.3 STANDARD TYPE 3POINT GROUP ANNUNCIATOR  
EXTENSION UNIT CONNECTION DIAGRAM



7-2.1 "DN" TYPE 3POINT GROUP ANNUNCIATOR  
OUT SIDE DESCRIPTION



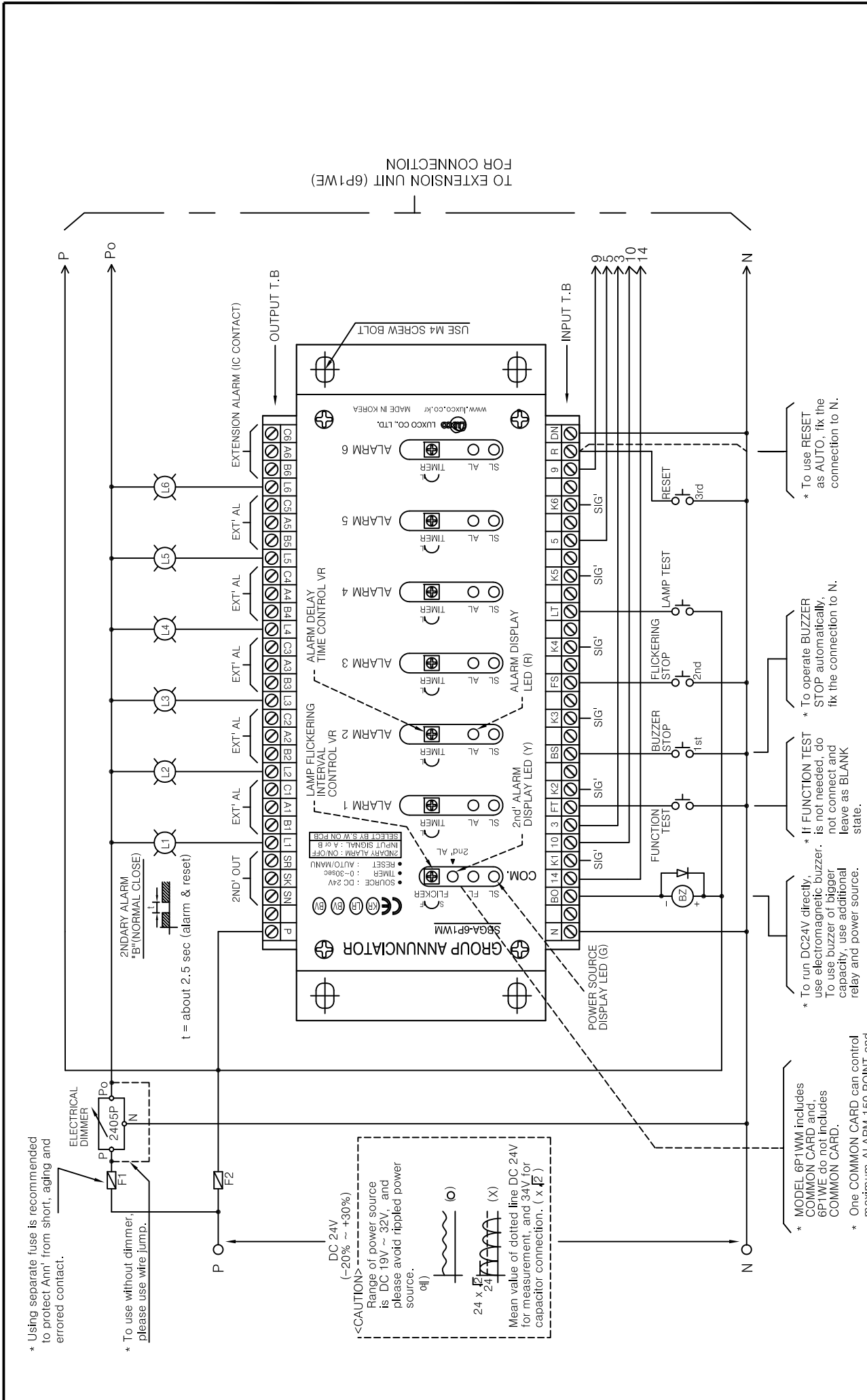


TO OTHER EXTENSION UNIT  
(3P1WE) FOR CONNECTION

\* WITHOUT COMMON CARD  
SAGA - 3P1WE

SYMBOL	FUNCTION
VR1 ~ VR3	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K3	ALARM INPUT SIGNAL (NC)
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
DN	DIMMER IN (NEGATIVE TYPE)

7-2.3 "DN" TYPE 3POINT GROUP ANNUNCIATOR  
EXTENSION UNIT CONNECTION DIAGRAM



\* Using separate fuse is recommended to protect Ann' from short, aging and errored contact.

\* To use without dimmer, please use wire jump.

t = about 2.5 sec (alarm & reset)

<CAUTION>  
 DC 24V (-20% ~ +30%)  
 Range of power source is DC 19V ~ 32V, and please avoid rippled power source.

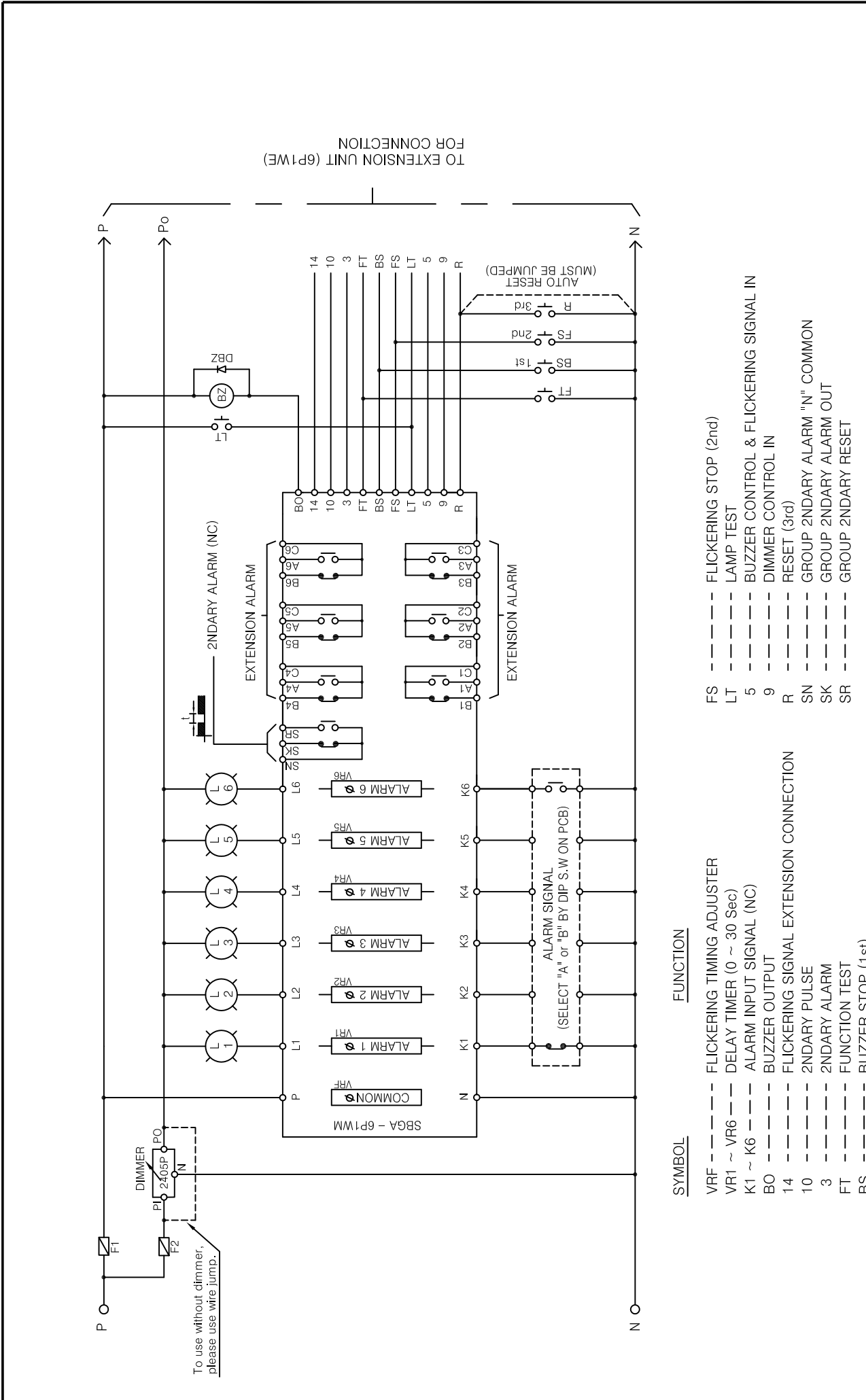


Mean value of dotted line DC 24V for measurement, and 34V for capacitor connection. ( x 12 )

- \* MODEL 6P1WM includes COMMON CARD and, 6P1WE do not include COMMON CARD.
- \* One COMMON CARD can control maximum ALARM 150 POINT and, GROUP (in case of using 6P1W MULTI UNIT ) should include only one COMMON CARD.
- \* To run DC24V directly, use electromagnetic buzzer. To use buzzer of bigger capacity, use additional relay and power source.
- \* If FUNCTION TEST is not needed, do not connect and leave as BLANK state.
- \* To operate BUZZER STOP automatically, fix the connection to N.
- \* To use RESET as AUTO, fix the connection to N.

TO EXTENSION UNIT (6P1WE)  
 FOR CONNECTION

8-1.1 STANDARD TYPE 6POINT GROUP ANNUNCIATOR  
 OUT SIDE DESCRIPTION

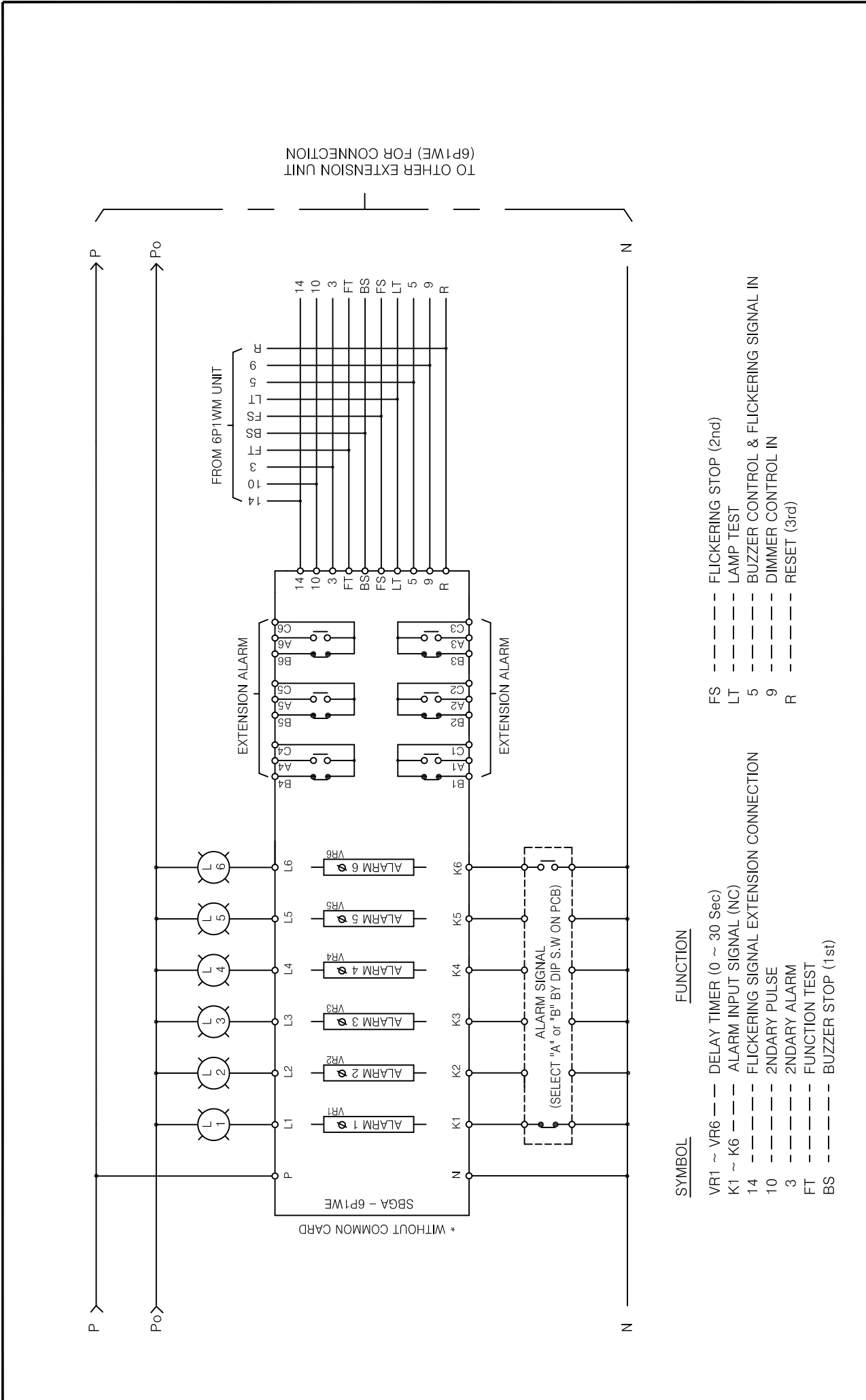


TO EXTENSION UNIT (6P1WE)  
FOR CONNECTION

SYMBOL	FUNCTION
VR1 ~ VR6	FLICKERING TIMING ADJUSTER
VR1 ~ VR6	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K6	ALARM INPUT SIGNAL (NC)
BO	BUZZER OUTPUT
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
SN	GROUP 2NDARY ALARM "N" COMMON
SK	GROUP 2NDARY ALARM OUT
SR	GROUP 2NDARY RESET

8-1.2 STANDARD TYPE 6POINT GROUP ANNUNCIATOR  
MAST UNIT CONNECTION DIAGRAM

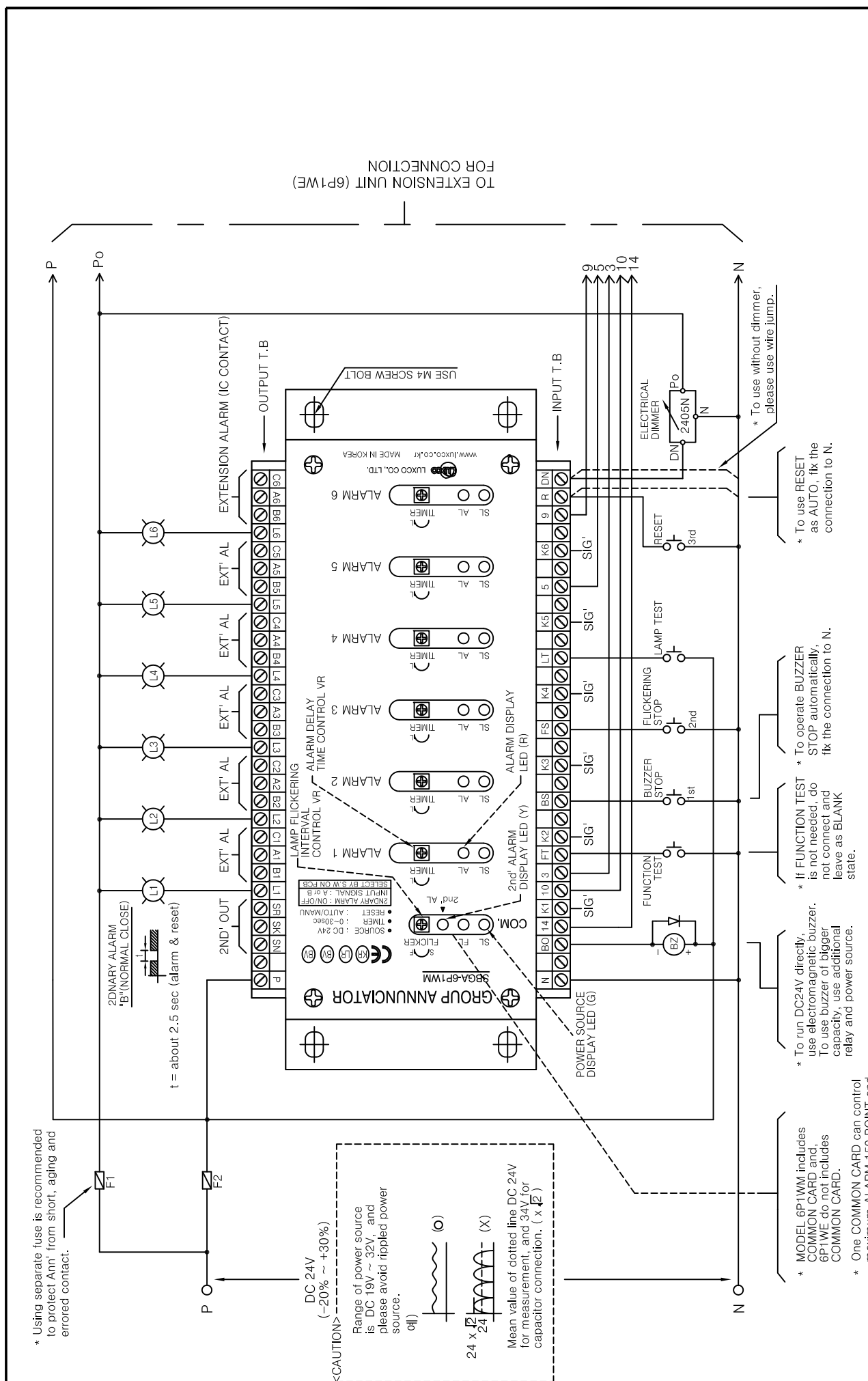




TO OTHER EXTENSION UNIT  
(6P1WE) FOR CONNECTION

SYMBOL	FUNCTION
VR1 ~ VR6	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K6	ALARM INPUT SIGNAL (NC)
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)

8-1.3 STANDARD TYPE 6POINT GROUP ANNUNCIATOR  
EXTENSION UNIT CONNECTION DIAGRAM

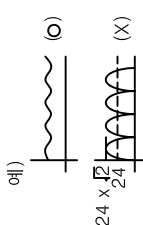


\* Using separate fuse is recommended to protect Ann<sup>1</sup> from short, aging and eroded contact.

2DINARY ALARM "B"(NORMAL CLOSE)  
 t = about 2.5 sec (alarm & reset)

DC 24V  
 (-20% ~ +30%)

Range of power source is DC 19V ~ 32V, and please avoid rippled power source.



Mean value of dotted line DC 24V for measurement, and 34V for capacitor connection. ( x 4 )

<CAUTION>

\* MODEL 6P1WM includes COMMON CARD and 6P1WE do not include COMMON CARD.

\* One COMMON CARD can control maximum ALARM 150 POINT and, GROUP (in case of using 6P1W MULTI UNIT ) should include only one COMMON CARD.

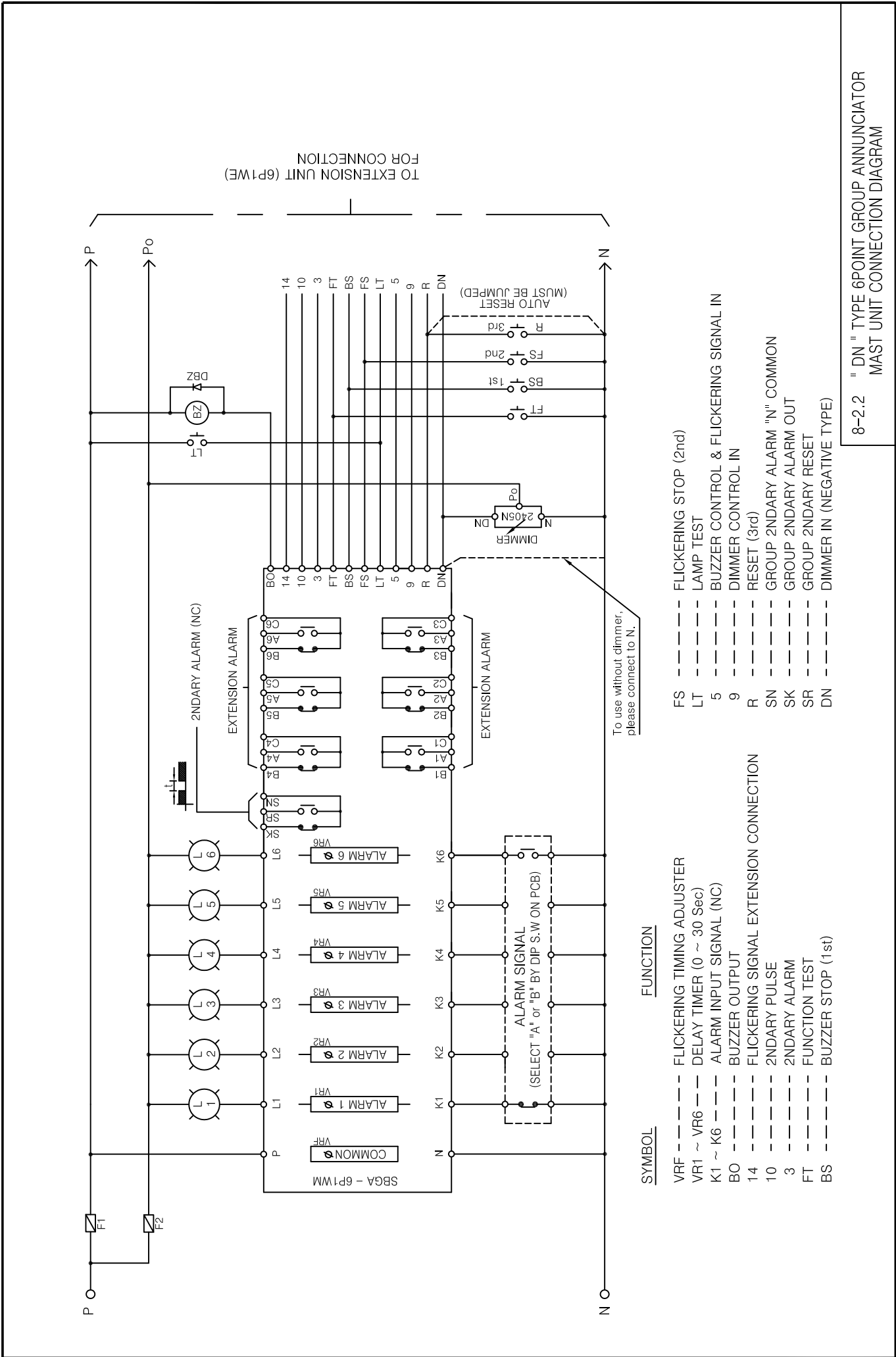
\* To run DC24V directly, use electromagnetic buzzer. To use buzzer of bigger capacity, use additional relay and power source.

\* If FUNCTION TEST is not needed, do not connect and leave as BLANK state.

\* To use RESET as AUTO, fix the connection to N.

\* To use without dimmer, please use wire jump.

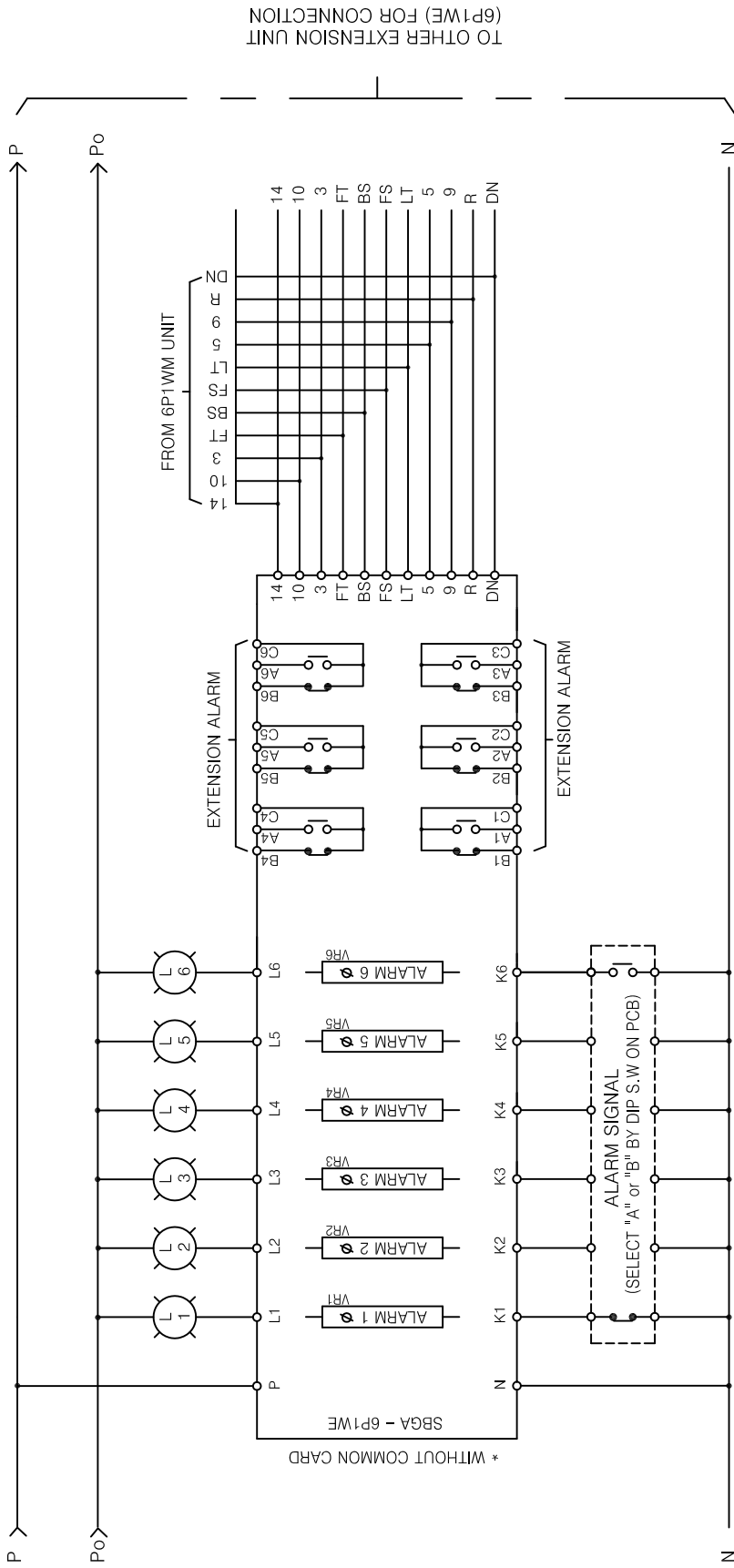
FOR CONNECTION TO EXTENSION UNIT (6P1WE)



TO EXTENSION UNIT (6P1WE)  
FOR CONNECTION

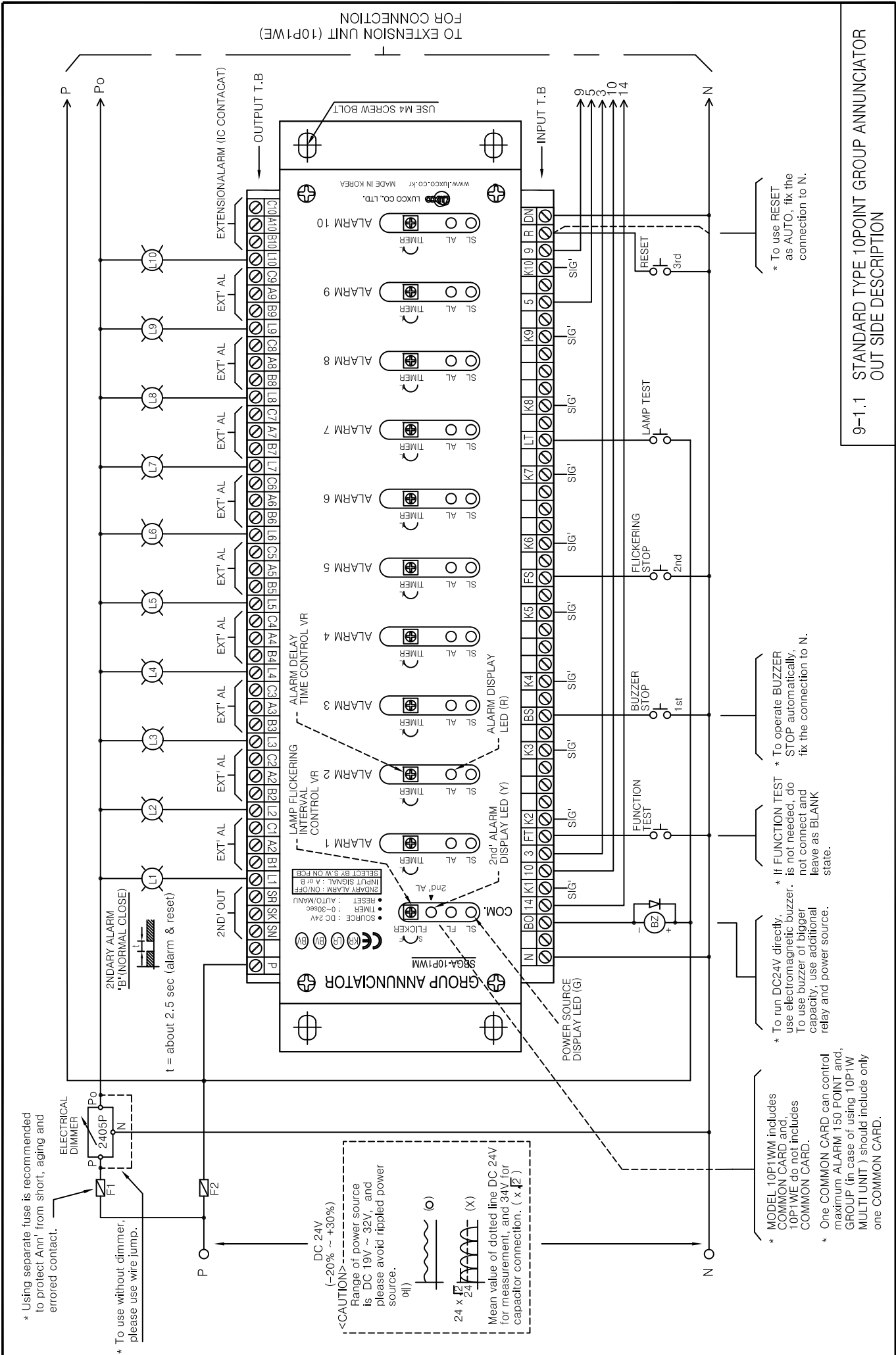
SYMBOL	FUNCTION
VRF	FLICKERING TIMING ADJUSTER
VR1 ~ VR6	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K6	ALARM INPUT SIGNAL (NC)
BO	BUZZER OUTPUT
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
SN	GROUP 2NDARY ALARM "N" COMMON
SK	GROUP 2NDARY ALARM OUT
SR	GROUP 2NDARY RESET
DN	DIMMER IN (NEGATIVE TYPE)

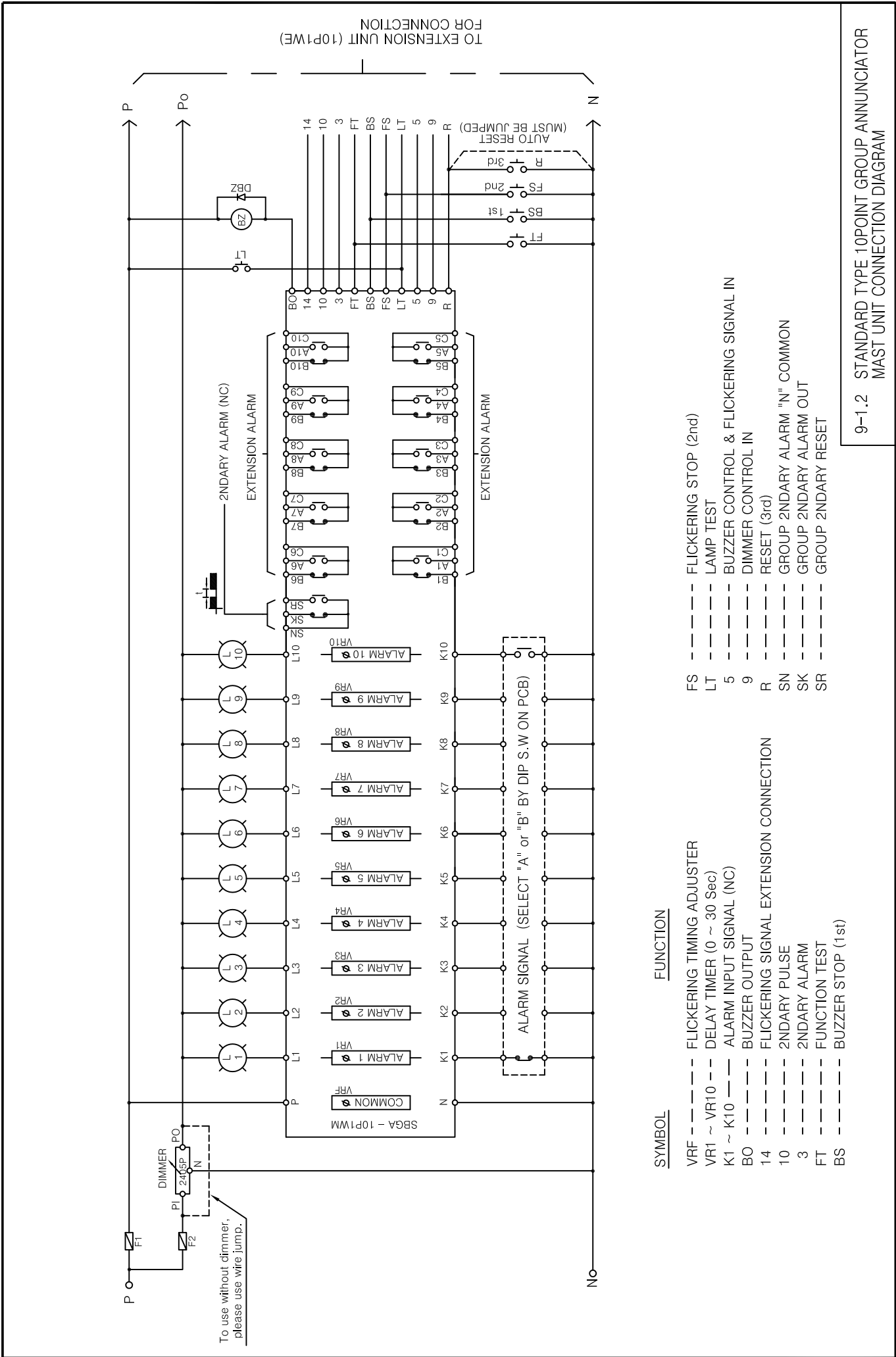
8-2.2 "DN" TYPE 6POINT GROUP ANNUNCIATOR  
MAST UNIT CONNECTION DIAGRAM



SYMBOL	FUNCTION
VR1 ~ VR6	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K6	ALARM INPUT SIGNAL (NC)
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)

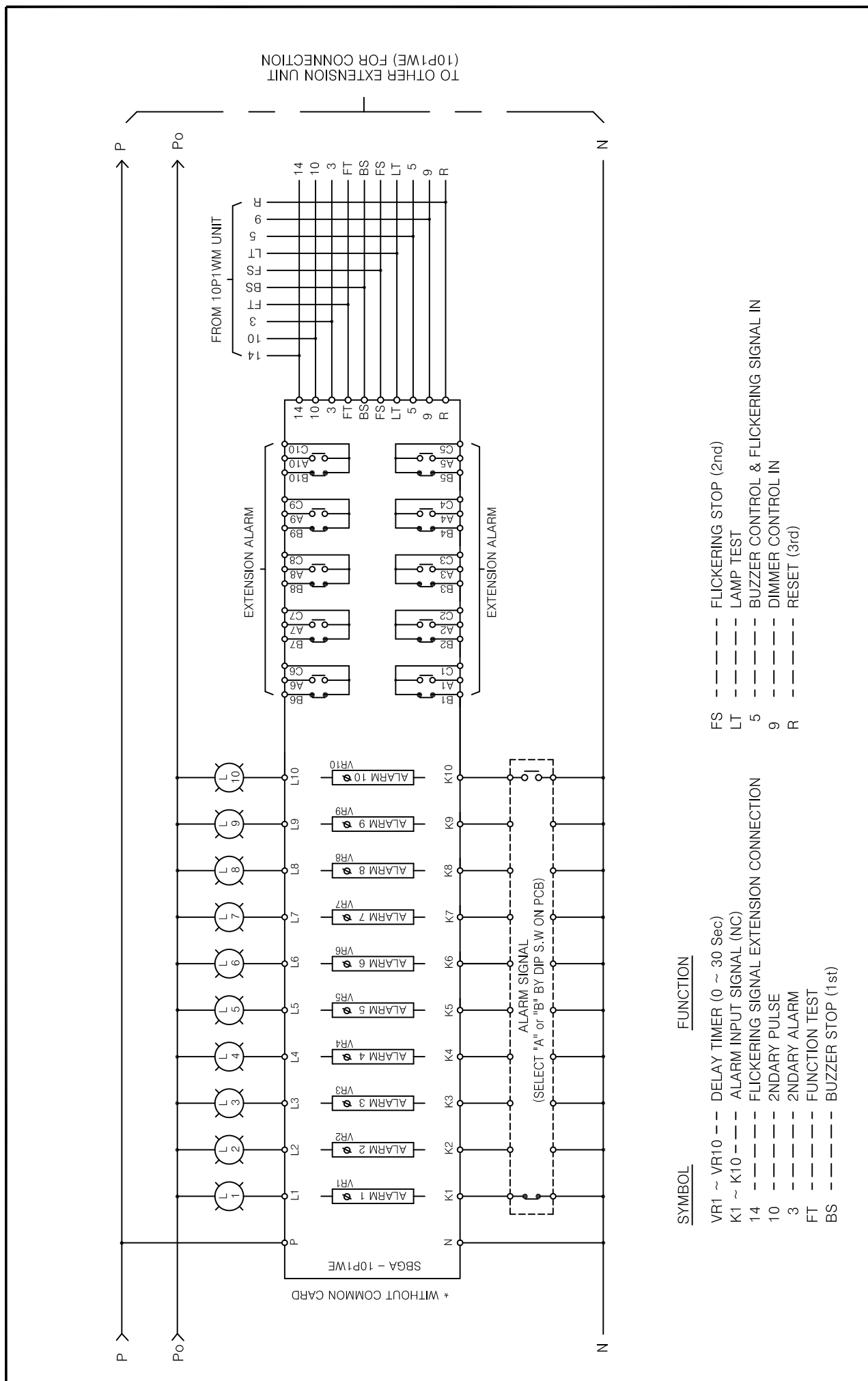
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
DN	DIMMER IN (NEGATIVE TYPE)





SYMBOL	FUNCTION
VR1	FLICKERING TIMING ADJUSTER
VR10 ~ VR1	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K10	ALARM INPUT SIGNAL (NC)
BO	Buzzer OUTPUT
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
SN	GROUP 2NDARY ALARM "N" COMMON
SK	GROUP 2NDARY ALARM OUT
SR	GROUP 2NDARY RESET

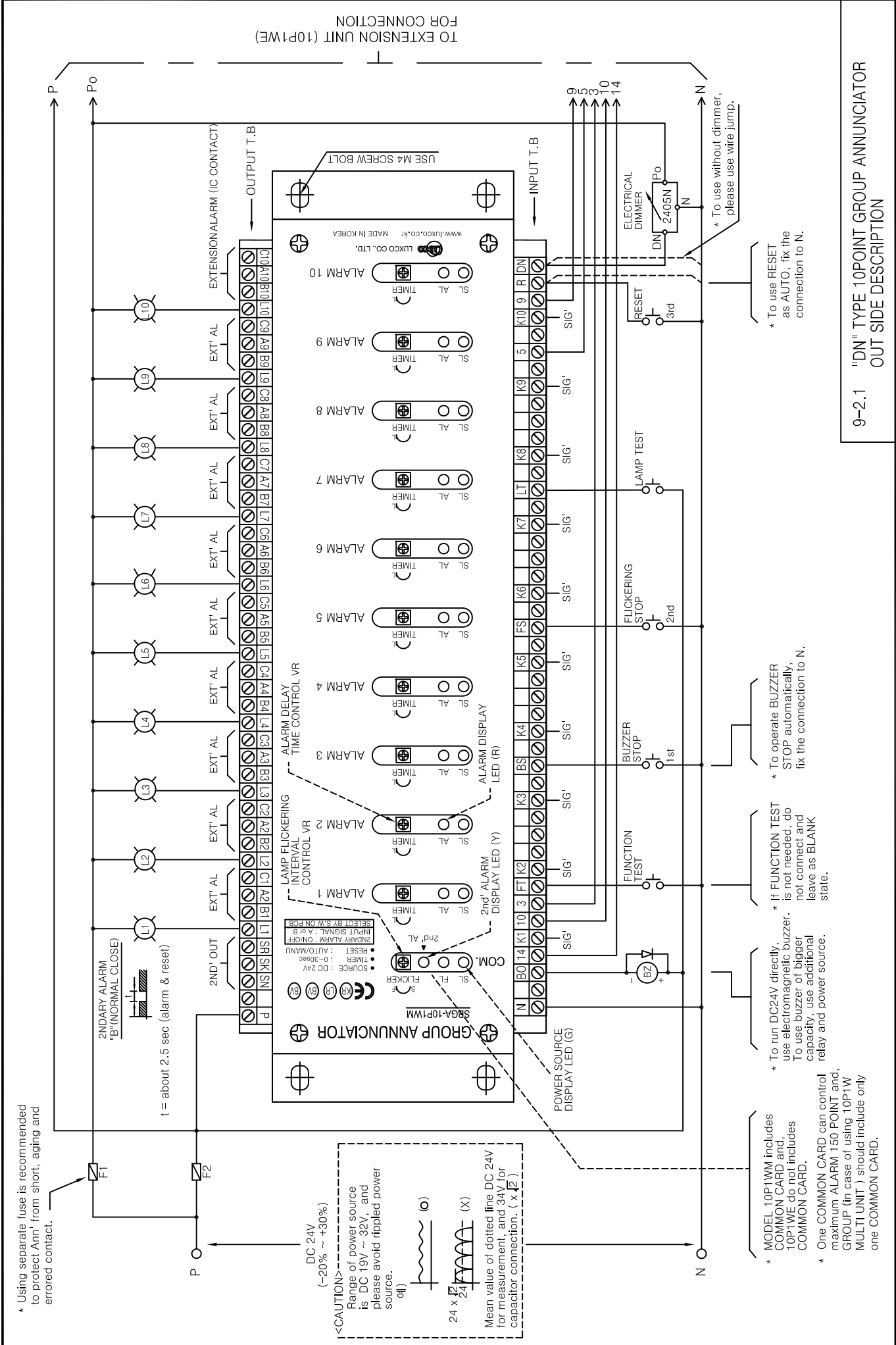
9-1.2 STANDARD TYPE 10POINT GROUP ANNUNCIATOR  
MAST UNIT CONNECTION DIAGRAM



TO OTHER EXTENSION UNIT  
(10P1WE) FOR CONNECTION

SYMBOL	FUNCTION
VR1 ~ VR10	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K10	ALARM INPUT SIGNAL (NC)
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
VR10	FLICKERING STOP (2nd)
L10	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)

9-1.3 STANDARD TYPE 10POINT GROUP ANNUNCIATOR  
EXTENSION UNIT CONNECTION DIAGRAM



\* Using separate fuse is recommended to protect 'Ann' from short, aging and eroded contact.

t = about 2.5 sec (alarm & reset)

2NDARY ALARM "B"(NORMAL CLOSE)

DC 24V (-20% ~ +30%)  
 Range of power source is DC 19V ~ 32V, and please avoid rippled power source.  
 24 x 24 (X)  
 Mean value of dotted line DC 24V for measurement, and 34V for capacitor connection. ( x 12 )

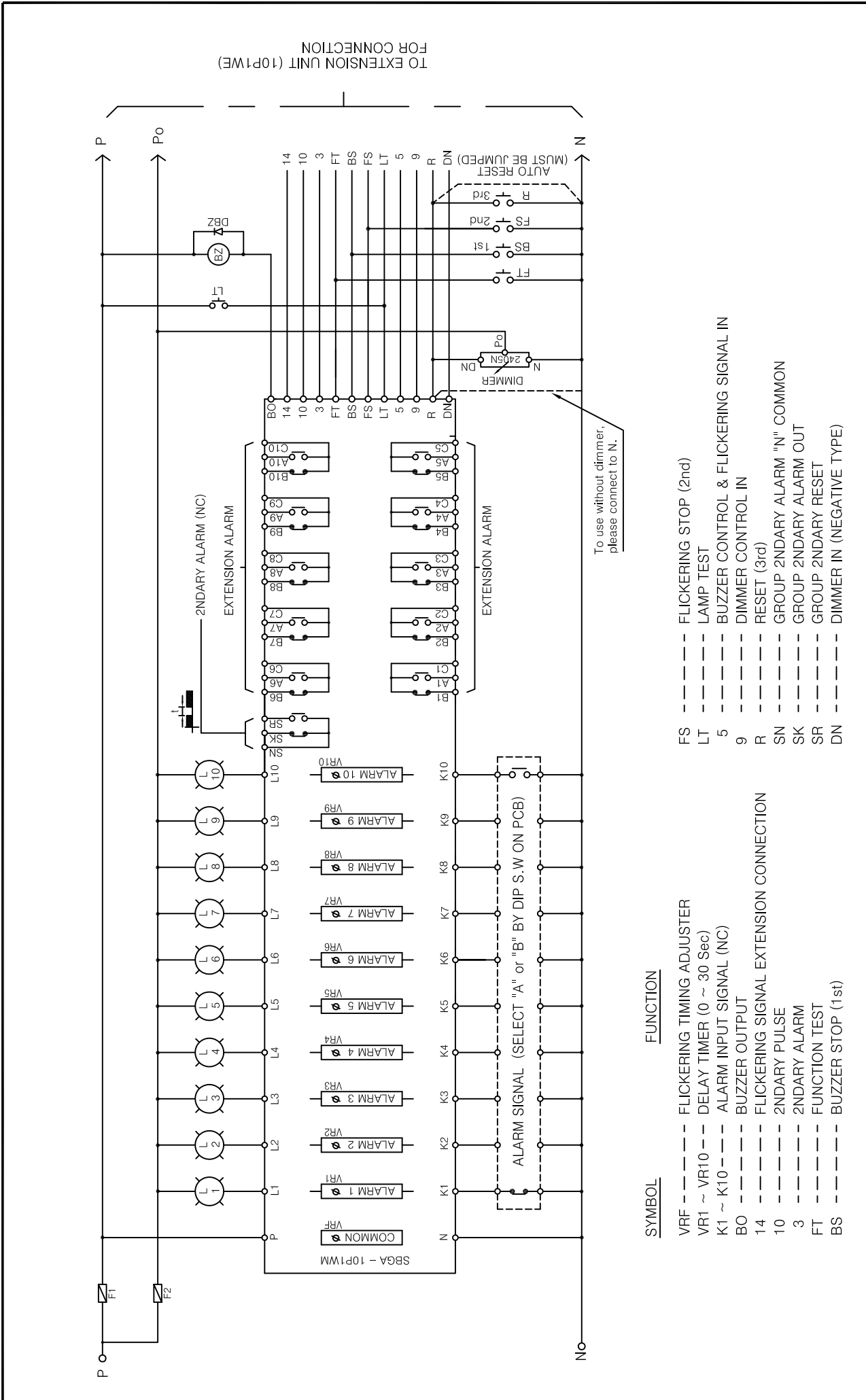
\* MODEL 10P1WM includes COMMON CARD and 10P1WE do not include COMMON CARD.  
 \* One COMMON CARD can control maximum ALARM 150 POINT and, GROUP (in case of using 10P1W MULTI UNIT ) should include only one COMMON CARD.

\* To run DC24V directly, use electromagnetic buzzer. To use buzzer of bigger capacity, use additional relay and power source.  
 \* IF FUNCTION TEST is not needed, do not connect and leave as BLANK state.  
 \* To operate BUZZER STOP automatically, fix the connection to N.

\* To use RESET as AUTO, fix the connection to N.  
 \* To use without dimmer, please use wire jump.

9-2.1 "DN" TYPE 10POINT GROUP ANNUNCIATOR  
 OUT SIDE DESCRIPTION

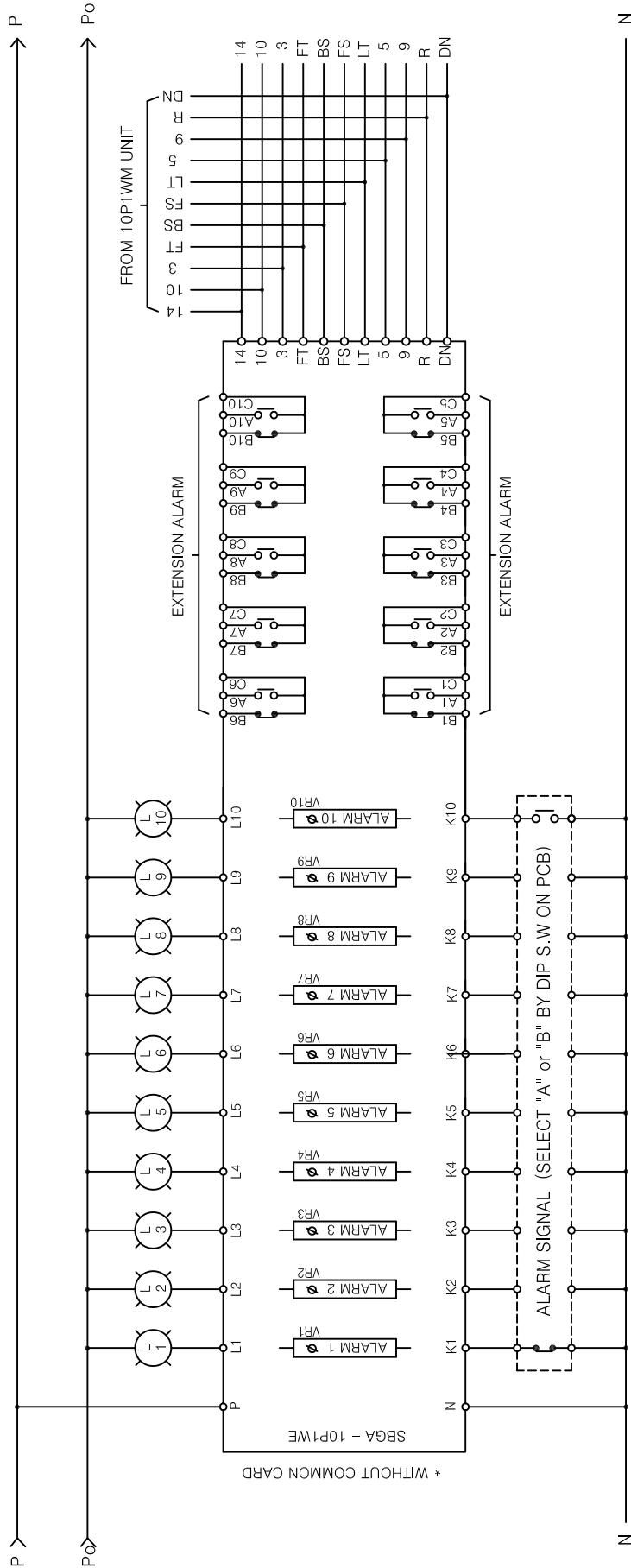




TO EXTENSION UNIT (10P1WE)  
FOR CONNECTION

SYMBOL	FUNCTION
VRF	FLICKERING TIMING ADJUSTER
VR1 ~ VR10	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K10	ALARM INPUT SIGNAL (NC)
BO	BUZZER OUTPUT
14	FLICKERING SIGNAL EXTENSION CONNECTION
10	2NDARY PULSE
3	2NDARY ALARM
FT	FUNCTION TEST
BS	BUZZER STOP (1st)
FS	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
SN	GROUP 2NDARY ALARM "N" COMMON
SK	GROUP 2NDARY ALARM OUT
SR	GROUP 2NDARY RESET
DN	DIMMER IN (NEGATIVE TYPE)

9-2.2 "DN" TYPE 10POINT GROUP ANNUNCIATOR  
MAST UNIT CONNECTION DIAGRAM



**SYMBOL**

- VR1 ~ VR10 --- DELAY TIMER (0 ~ 30 Sec)
- K1 ~ K10 --- ALARM INPUT SIGNAL (NC)
- 14 --- FLICKERING SIGNAL EXTENSION CONNECTION
- 10 --- 2NDARY PULSE
- 3 --- 2NDARY ALARM
- FT --- FUNCTION TEST
- BS --- BUZZER STOP (1st)

**FUNCTION**

- FS --- FLICKERING STOP (2nd)
- LT --- LAMP TEST
- 5 --- BUZZER CONTROL & FLICKERING SIGNAL IN
- 9 --- DIMMER CONTROL IN
- R --- RESET (3rd)
- DN --- DIMMER IN (NEGATIVE TYPE)

9-2.3 "DN" TYPE 10POINT GROUP ANNUNCIATOR  
EXTENSION UNIT CONNECTION DIAGRAM

\* Using separate fuse is recommended to protect from short-circuiting and entered contact.

\* To use without dimmer, please use wire jump.

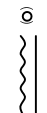


2NDARY ALARM 'B' (NORMAL CLOSE)

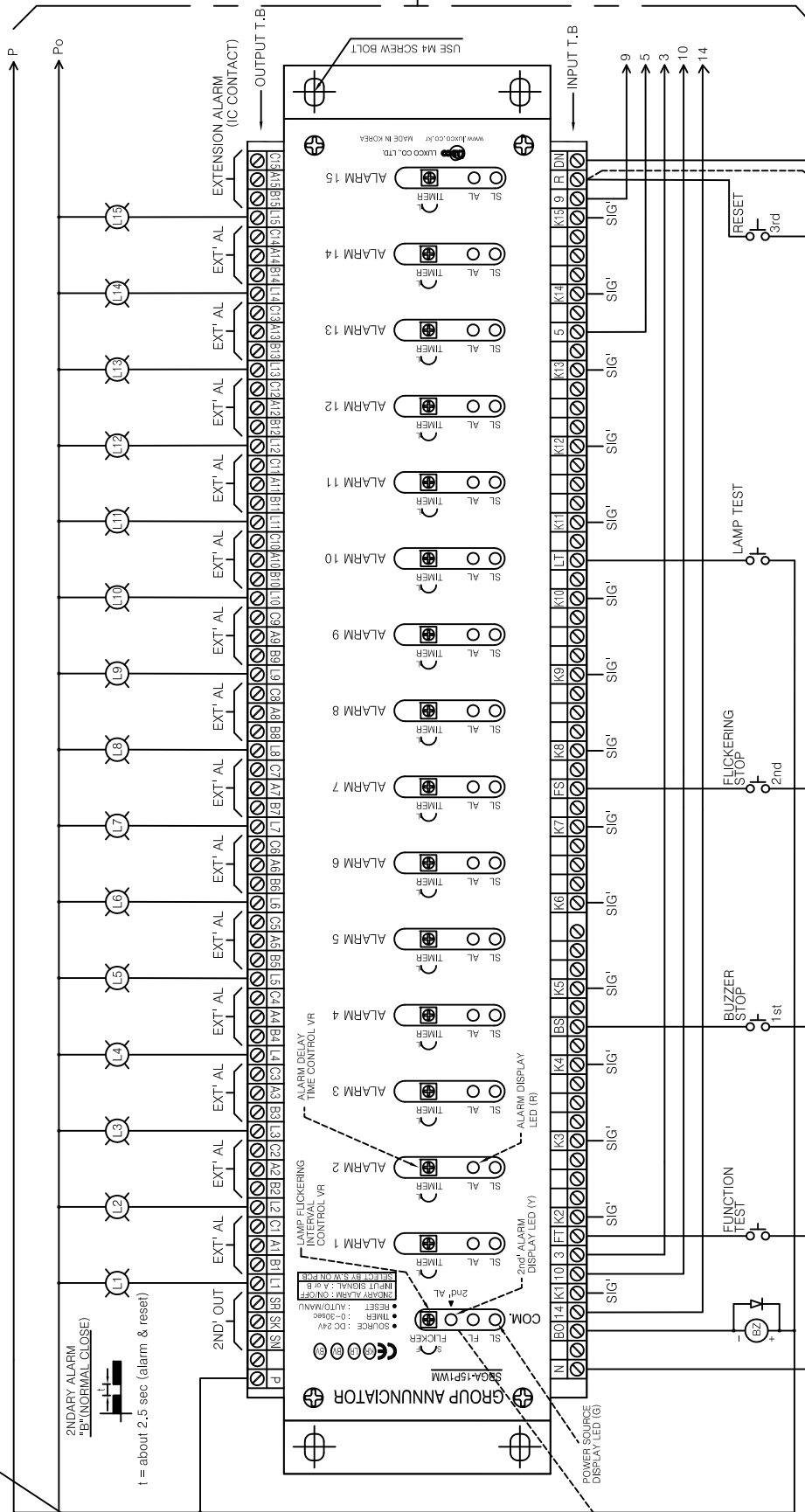
t = about 2.5 sec (alarm & reset)

DC 24V  
(-20% ~ +30%)

Range of power source is DC 19V ~ 28V, and it is recommended to use a regulated power source.



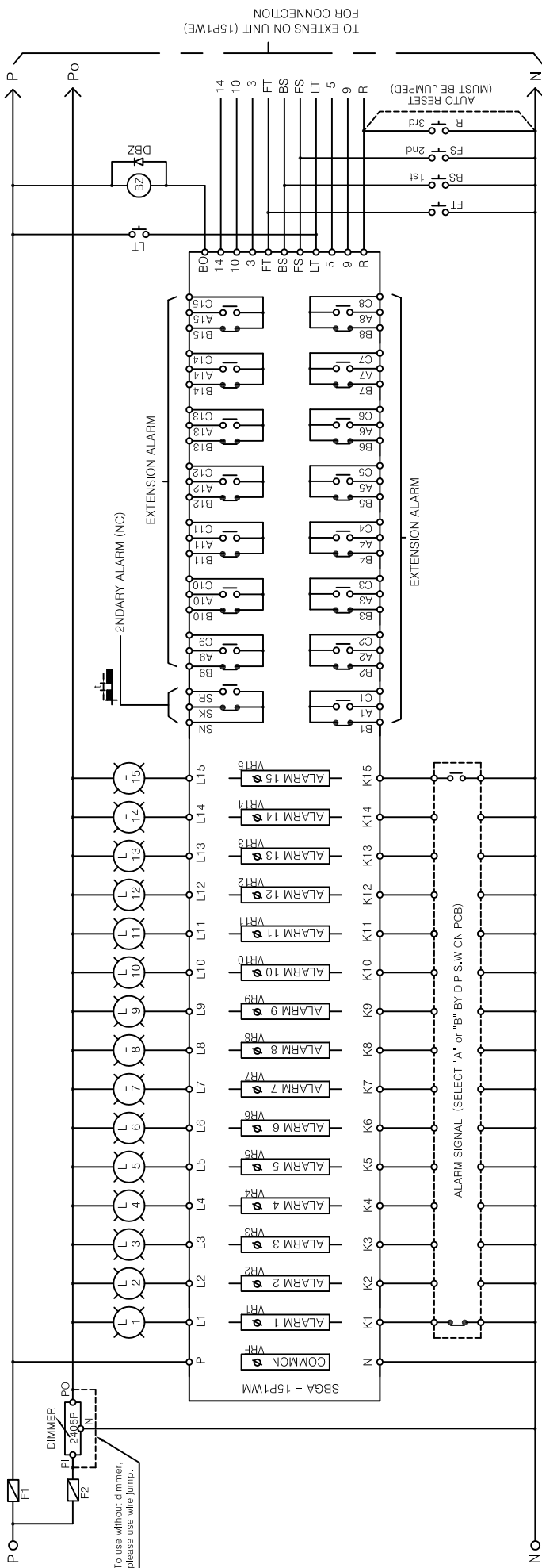
Mean value of dotted line DC 24V for measurement, and 34V for capacitor connection. (x x2)



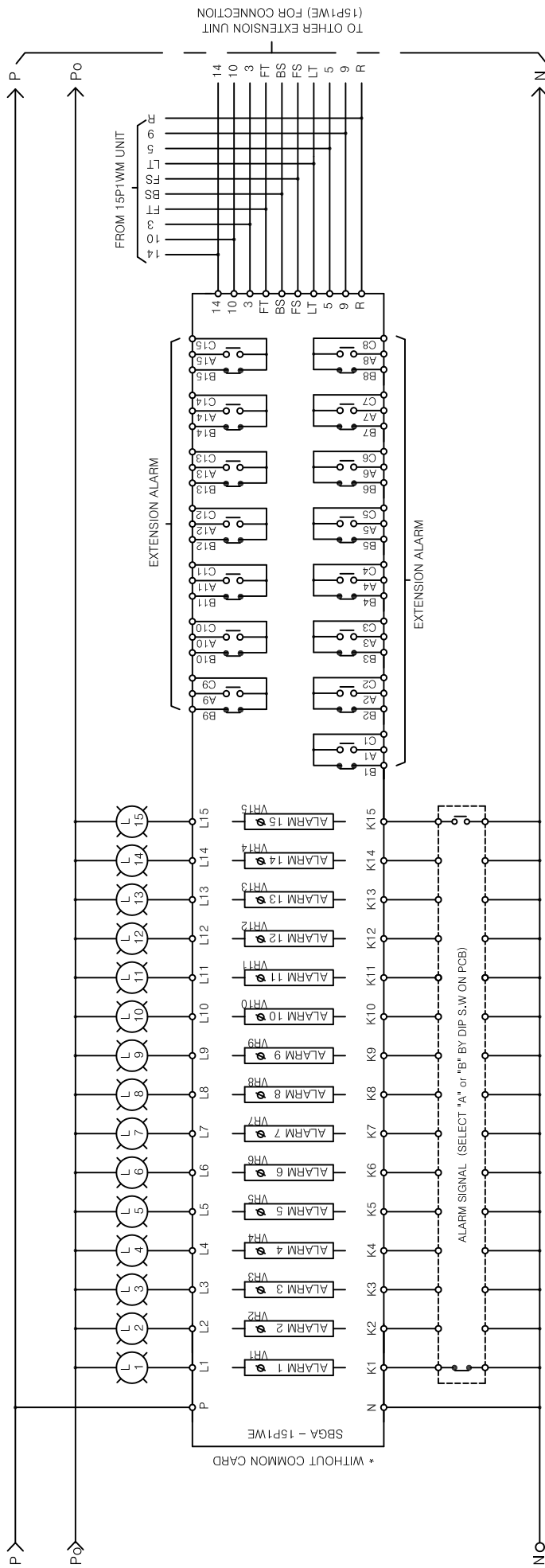
TO EXTENSION UNIT (15P1WE) FOR CONNECTION

- \* MODEL 15P1WM includes COMMON CARD and 15P1WE do not include COMMON CARD.
- \* One COMMON CARD can control maximum ALARM 150 POINT and GROUP (in case of using 15P1W MULTUNIT) should include only one COMMON CARD.
- \* To run DC24V directly, use electromagnetic buzzer. To use buzzer of bigger capacity, use additional relay and power source.
- \* IF FUNCTION TEST is not needed, do not connect and leave as BLANK state.
- \* To operate BUZZER STOP automatically, fix the connection to N.

\* To use RESET as AUTO, fix the connection to N.



SYMBOL	FUNCTION
VRF	FLICKERING TIMING ADJUSTER
VR1 ~ VR15	DELAY TIMER (0 ~ 30 Sec)
K1 ~ K15	ALARM INPUT SIGNAL (NC)
BO	BUZZER CONTROL & FLICKERING SIGNAL IN
14	DIMMER CONTROL IN
10	RESET (3rd)
3	GROUP 2NDARY ALARM "N" COMMON
FT	GROUP 2NDARY ALARM OUT
BS	FUNCTION TEST
	BUZZER STOP (1st)
	FLICKERING STOP (2nd)
LT	LAMP TEST
5	BUZZER CONTROL & FLICKERING SIGNAL IN
9	DIMMER CONTROL IN
R	RESET (3rd)
SN	GROUP 2NDARY ALARM "N" COMMON
SK	GROUP 2NDARY ALARM OUT
SR	GROUP 2NDARY RESET



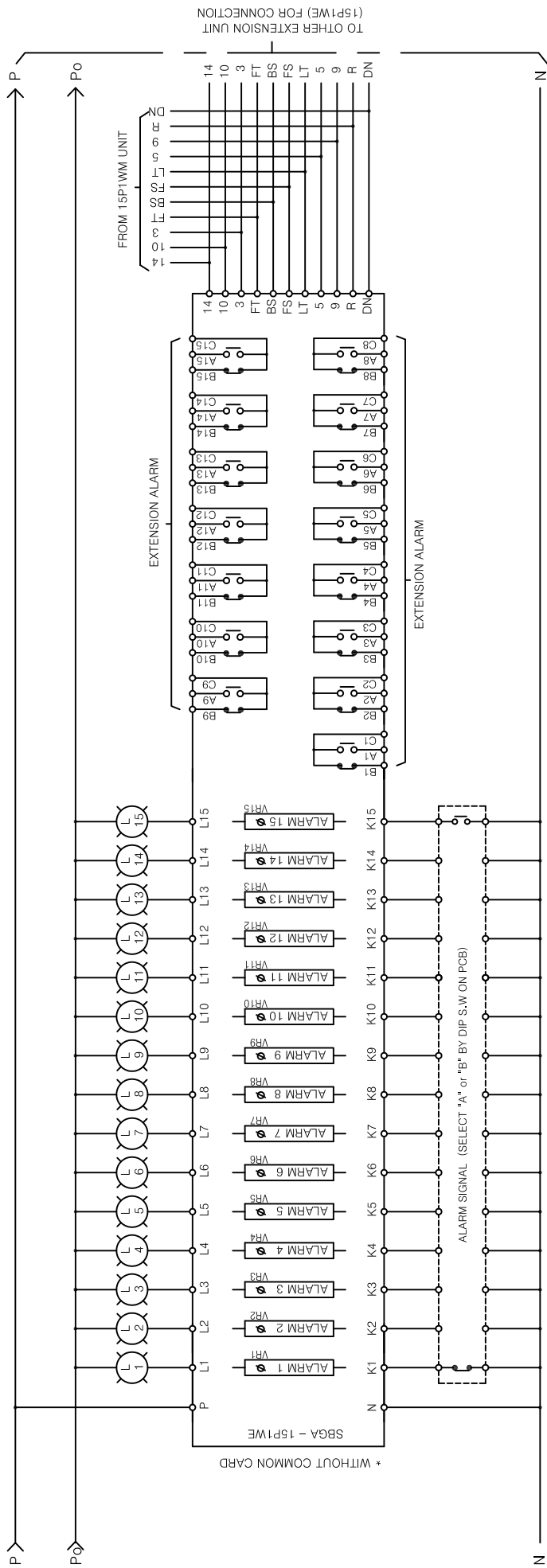
**SYMBOL**      **FUNCTION**

- VR1 ~ VR15 --- DELAY TIMER (0 ~ 30 Sec)
- K1 ~ K15 --- ALARM INPUT SIGNAL (NC)
- 14 --- FLICKERING SIGNAL EXTENSION CONNECTION
- 10 --- 2NDARY PULSE
- 3 --- 2NDARY ALARM
- FT --- FUNCTION TEST
- BS --- BUZZER STOP (1st)

- FS --- FLICKERING STOP (2nd)
- LT --- LAMP TEST
- 5 --- BUZZER CONTROL & FLICKERING SIGNAL IN
- 9 --- DIMMER CONTROL IN
- R --- RESET (3rd)





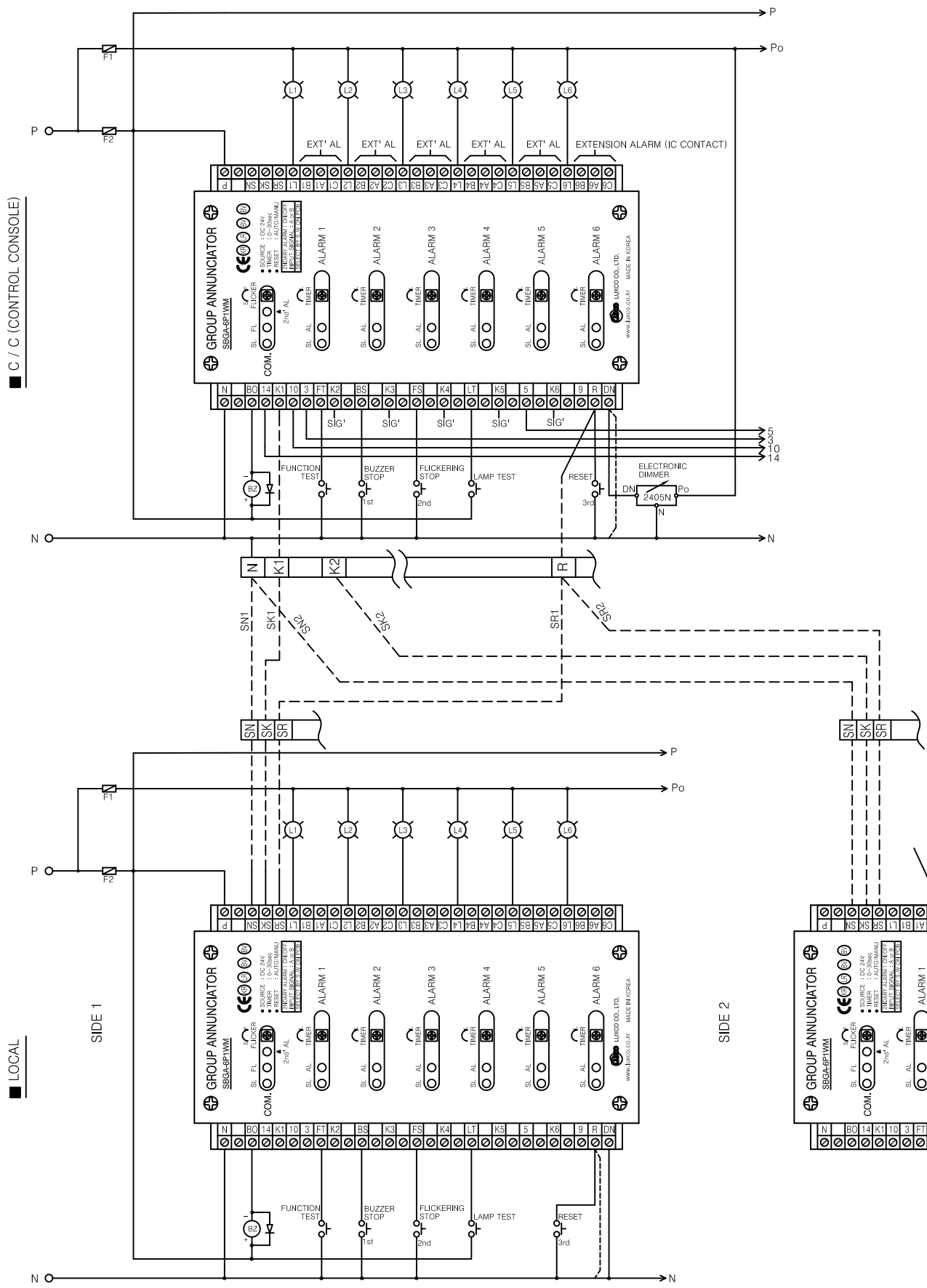


**SYMBOL**      **FUNCTION**

- VR1 ~ VR15 --- DELAY TIMER (0 ~ 30 Sec)
- K1 ~ K15 --- ALARM INPUT SIGNAL (NC)
- 14 --- FLICKERING SIGNAL EXTENSION CONNECTION
- 10 --- 2NDARY PULSE
- 3 --- 2NDARY ALARM
- FT --- FUNCTION TEST
- BS --- BUZZER STOP (1st)
- FS --- FLICKERING STOP (2nd)
- LT --- LAMP TEST
- 5 --- BUZZER CONTROL & FLICKERING SIGNAL IN
- 9 --- DIMMER CONTROL IN
- R --- RESET (3rd)
- DN --- DIMMER IN (NEGATIVE TYPE)



# 11. 2NDARY ALARM SYSTEM CONNECTION DIAGRAM



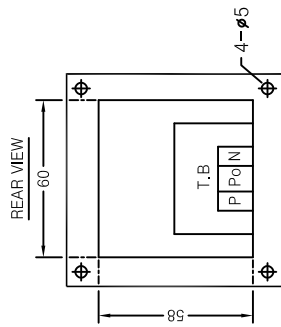
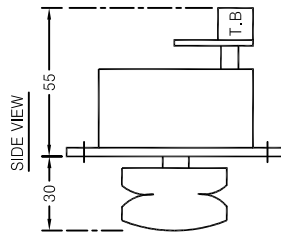
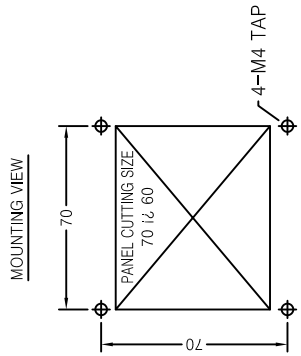
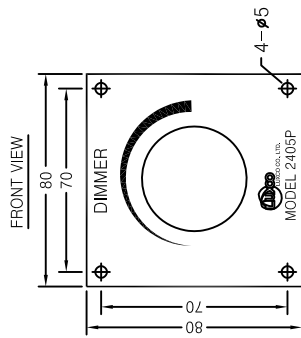
■ C / C (CONTROL CONSOLE)

■ LOCAL

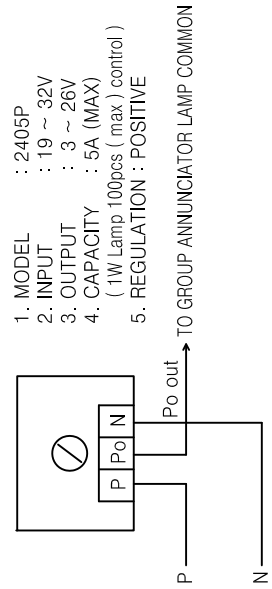
SIDE 1

SIDE 2

■ ELECTRICAL DIMMER POSITIVE TYPE  
( MODEL : 2405P )

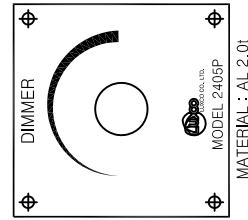


■ CONNECTION DIAGRAM

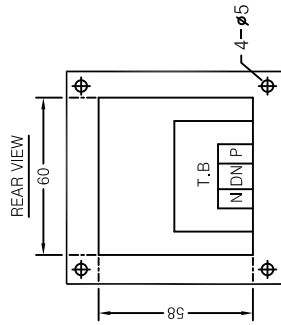
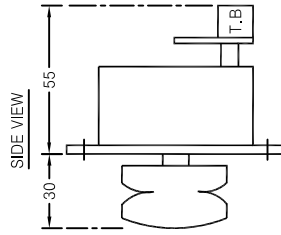
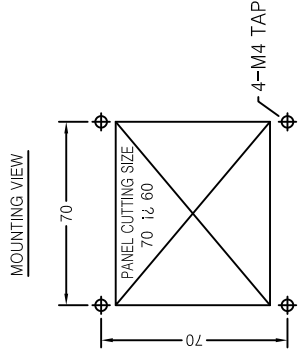
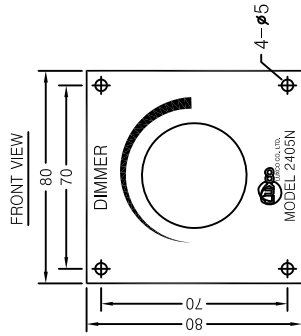


1. MODEL : 2405P
2. INPUT : 19 ~ 32V
3. OUTPUT : 3 ~ 26V
4. CAPACITY : 5A (MAX)  
( 1W Lamp 100pcs ( max ) control )
5. REGULATION : POSITIVE

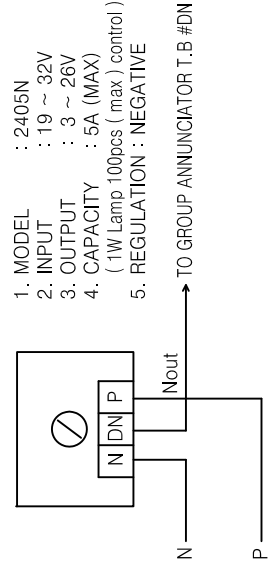
■ NAME PLATE



■ ELECTRICAL DIMMER NEGATIVE TYPE  
( MODEL : 2405N )



■ CONNECTION DIAGRAM



1. MODEL : 2405N
2. INPUT : 19 ~ 32V
3. OUTPUT : 3 ~ 26V
4. CAPACITY : 5A (MAX)  
( 1W Lamp 100pcs ( max ) control )
5. REGULATION : NEGATIVE

■ NAME PLATE

