

Annunciator Manual

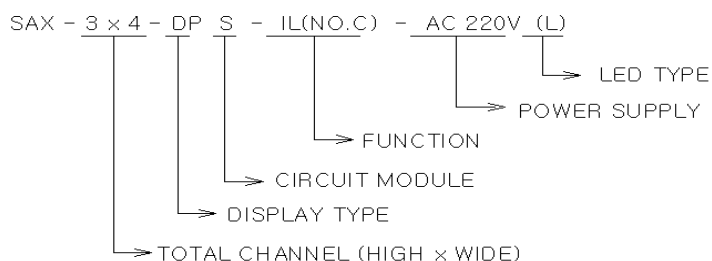
 삼인기술주식회사

DATA SHEET

THIS SPECIFICATION COVERS THE TECHNICAL REQUIREMENT FOR THE **samin** ANNUNCIATOR ASSEMBLY WHICH MAY BE INCLUDED IN THE INSTRUMENT MANUFACTURED BY SAMIN TECHNOLOGY CO., LTD. (HEREINAFTER REFERRED TO AS SAMIN)

1. MODEL

A) SELECTION OF MODEL NO.



B) PURCHASE ORDER OF MODEL NO.

☐

2. DISPLAY UNIT TYPE

- | | |
|---|--|
| ☐ ENGRAVE TYPE (40H x 80W) | ☐ LED LAMP TYPE (30H x 40W) |
| ☐ ENGRAVE DOOR TYPE (40H x 80W) | ☐ PILOT TYPE (40H x 40W) |
| ☐ WINDOW TYPE (88H x 88W, 44H x 88W) | |

3. CIRCUIT MODULE

- | | | | |
|---|-------------------------------------|-----------------------------------|---|
| ☐ SOLID STATE TYPE | ☐ RELAY TYPE | ☐ CPU TYPE | ☐ CPU TYPE(RS 485) |
|---|-------------------------------------|-----------------------------------|---|

4. FUNCTION

- | | | |
|---|---|---|
| A) ☐ BASIC TYPE | ☐ INSPECTION TYPE | ☐ RING BACK TYPE |
| ☐ FIRSTOUT TYPE (F2M) | ☐ MO SEQUENCE | ☐ MULTIFUNCTION |
| B) ☐ LOCK IN TYPE | ☐ NON LOCK TYPE | ☐ |
| C) ☐ NORMAL CLOSE TYPE | ☐ NORMAL OPEN TYPE | ☐ |

5. POWER SUPPLY

- | | | | | |
|----------------------------------|----------------------------------|--------------------------------|----------------------------------|----------------------------------|
| ☐ AC 110V | ☐ AC 220V | ☐ DC24V | ☐ DC 110V | ☐ DC 220V |
|----------------------------------|----------------------------------|--------------------------------|----------------------------------|----------------------------------|

6. ANNUNCIATOR COLOR

A) CASE

- | | | |
|--------------------------------|--------------------------|--------------------------|
| ☐ BLACK | ☐ | ☐ |
|--------------------------------|--------------------------|--------------------------|

B) LAMP BODY

- | | | | | |
|--------------------------------|------------------------------|-------------------------------|---------------------------------|--------------------------------|
| ☐ WHITE | ☐ RED | ☐ GRAY | ☐ YELLOW | ☐ GREEN |
|--------------------------------|------------------------------|-------------------------------|---------------------------------|--------------------------------|

C) FILTER

- | | | | |
|-------------------------------------|------------------------------|--------------------------------|---------------------------------|
| ☐ MILK WHITE | ☐ RED | ☐ GREEN | ☐ YELLOW |
|-------------------------------------|------------------------------|--------------------------------|---------------------------------|

D) LAMP

- | | | | | | |
|---|---------------------------------|--------------------------------|--------------------------------|----------------------------------|-----------------------------------|
| ☐ LED (☐ RED | ☐ YELLOW | ☐ WHITE | ☐ GREEN | ☐ AMBER) | ☐ FILAMENT |
|---|---------------------------------|--------------------------------|--------------------------------|----------------------------------|-----------------------------------|

7. MOUNTING

- | | | |
|----------------------------------|-------------------------------|--------------------------------|
| ☐ SURFACE | ☐ RACK | ☐ FLUSH |
|----------------------------------|-------------------------------|--------------------------------|

1. Specification

- 1.1 Input Power : 24VDC $\pm$ 5%
- 1.2 Output Driver : 200mA
- 1.3 Operating Temperature : 0℃ to 55℃
- 1.4 Storage Temperature : -40℃ to 85℃
- 1.5 Audible : Single, dual horn
- 1.6 Output Relay : CTA(common Trouble Alarm 1 SPDT)
- 1.7 Contact Rating : 10A/28VDC, 5A/250VAC
- 1.8 Alarm Sequence : ISA 18.1. A, M, F1A, F1M, F2A, F2M, F3A, F3M, Ring back
- 1.9 Pushbutton : Operational Test, Acknowledge, Reset, Lamp Test, Silence Stop.

2. Function Selection

2.1 Alarm Sequence (SAX-CPU)

- A (Basic) Sequence : PB S/W COM + RES
- M (Inspection) Sequence : Dip S/W 1. ⑥ ⑦ ⑧ OFF
- F1A (First Out) Sequence : Dip S/W 1. ⑥ ON
- F1M (First Out) Sequence : Dip S/W 1. ⑦ ON
- F2A (First Out) Sequence : Dip S/W 1. ⑥ ⑦ ON
- F2M (First Out) Sequence : Dip S/W 1. ⑧ ON
- F3A (First Out) Sequence : Dip S/W 1. ⑥ ⑧ ON
- F3M (First Out) Sequence : Dip S/W 1. ⑦ ⑧ ON
- Ring Back Sequence : Dip S/W 1. ⑥ ⑦ ⑧ ON

2.2 CTA(Common Trouble Alarm) : SAX-CPU

- Field ON/OFF $\leftrightarrow$ CTA Relay ON/OFF : Dip S/W 1. ③ OFF
- Field ON/OFF $\leftrightarrow$ CTA Relay ON/OFF After Reset : Dip S/W 1. ③ ON

2.3 Re-Flashing (SAX-CPU) : Dip S/W 1 ⑤ ON

2.4 Audible Selection (SAX-LOG)

- Consecutive : Dip S/W 1. ④ OFF (SAX-CPU)
- 30 Second : Dip S/W 1. ④ ON (SAX-CPU)
- Audible 1 (Buzzer) : Dip S/W 5 . 6 OFF (SAX-LOG)
- Audible 2 (Bell) : Dip S/W 5 . 6 ON (SAX-LOG)

2.5 Normal Open/Close Selection (SAX-LOG)

- Normal Open : Dip S/W 1 , 2 OFF
- Normal Close : Dip S/W 1 , 2 ON

2.6 Lock In/Non Lock Selection (SAX-LOG)

- Lock In : Dip S/W 3,4 OFF
- Non Lock : Dip S/W 3,4 ON

2.7 S/W Selection

- CPU(SAX-CPU) Board

Dip S/W 2 ① ② ③ ④ : IN/OUT(SAX-LOG) Board quantity

(예) SAX-LOG 2 quantity : ② ON , 3 quantity : ① ② ON

- IN/OUT(SAX-LOG) Board

Dip S/W 1 (4 pol) : IN/OUT(SAX-LOG) Address

(예) Dip S/W 1 (4 pol) : ① ② ③ ④ OFF → NO.1

① ON → NO. 2

① ② ON → NO. 4

2.8 Status Selection

- CPU (SAX-CPU) Board Dip S/W 2 : ⑧ ON

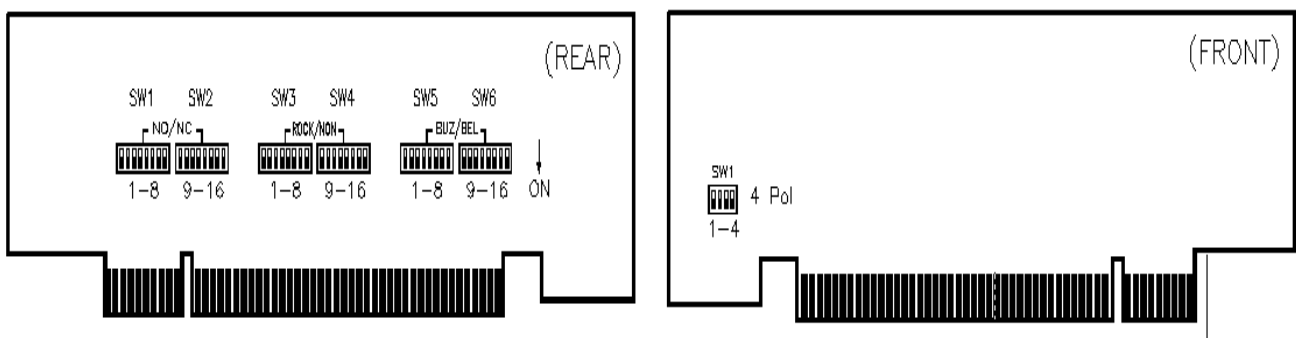
- IN/OUT (SAX-LOG) Board : S/W 3, S/W 4

(예) Status A5 : IN/OUT S/W 3 ⑤ ON

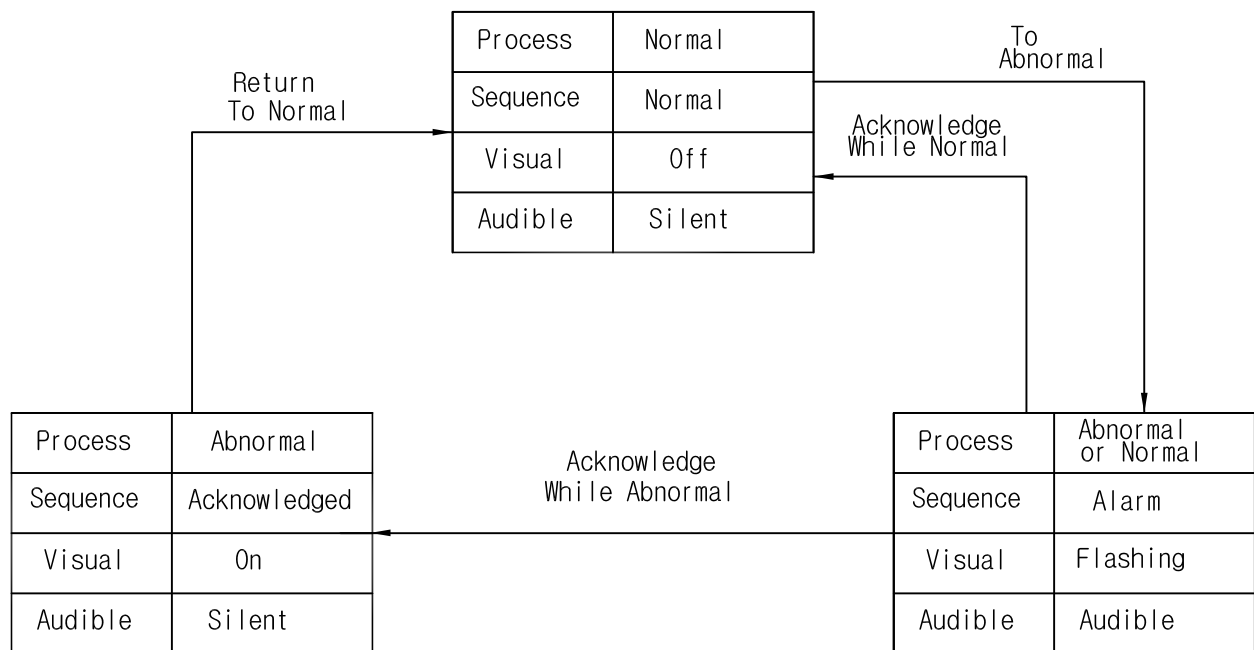
■ CPU Board (SAX-CPU)



■ LOGIC Input/output Board(SAX-LOG)



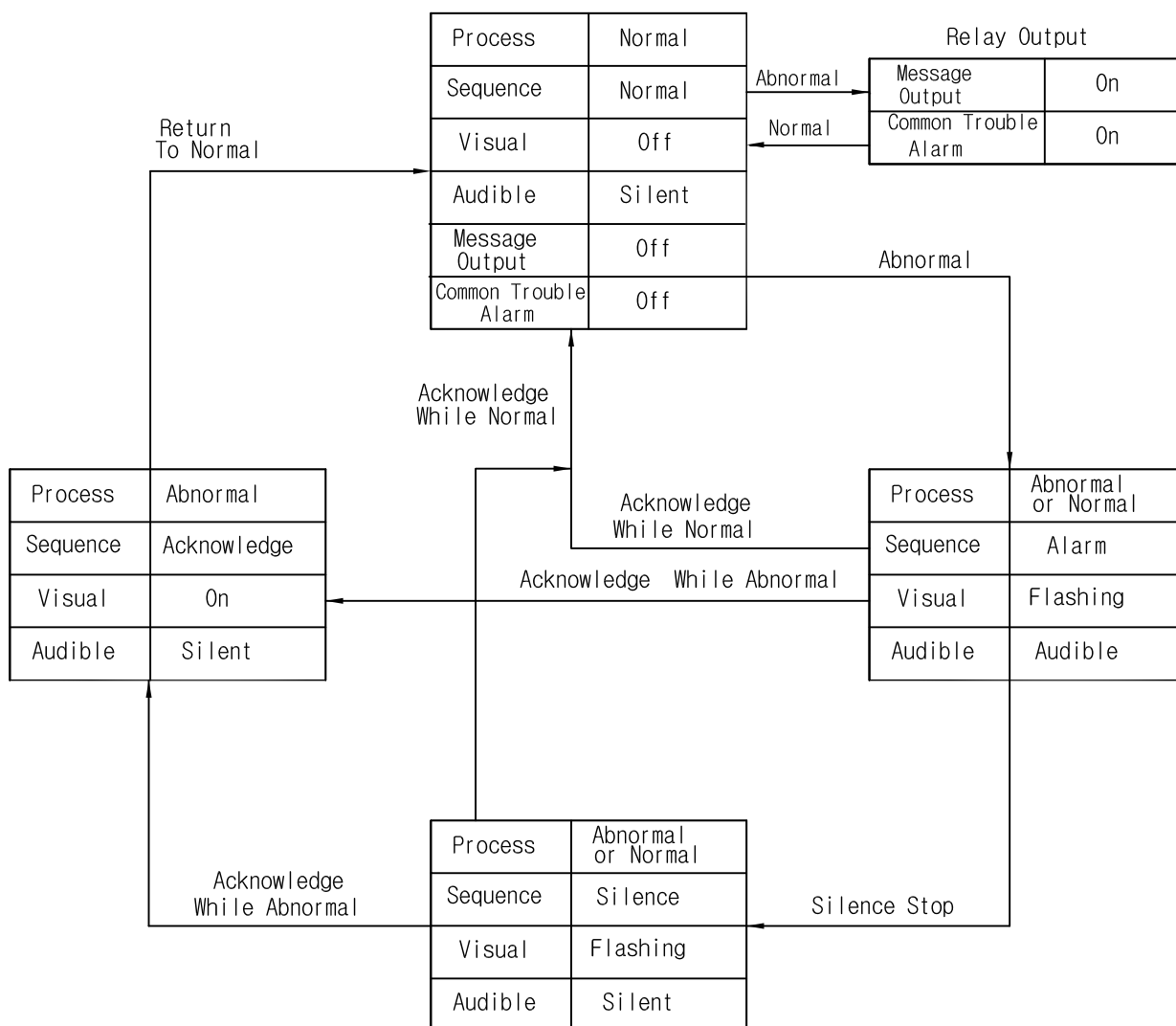
■ Sequence A Automatic Reset



■ Basic Sequence (A)

	NON LOCK TYPE			LOCK IN TYPE		
DESCRIPTION	1	2	3	1	2	3
ALARM INPUT						
LAMP VISIBLE						
BUZZER						
ACKNOWLEDGE						
TEST						
LAMP TEST						

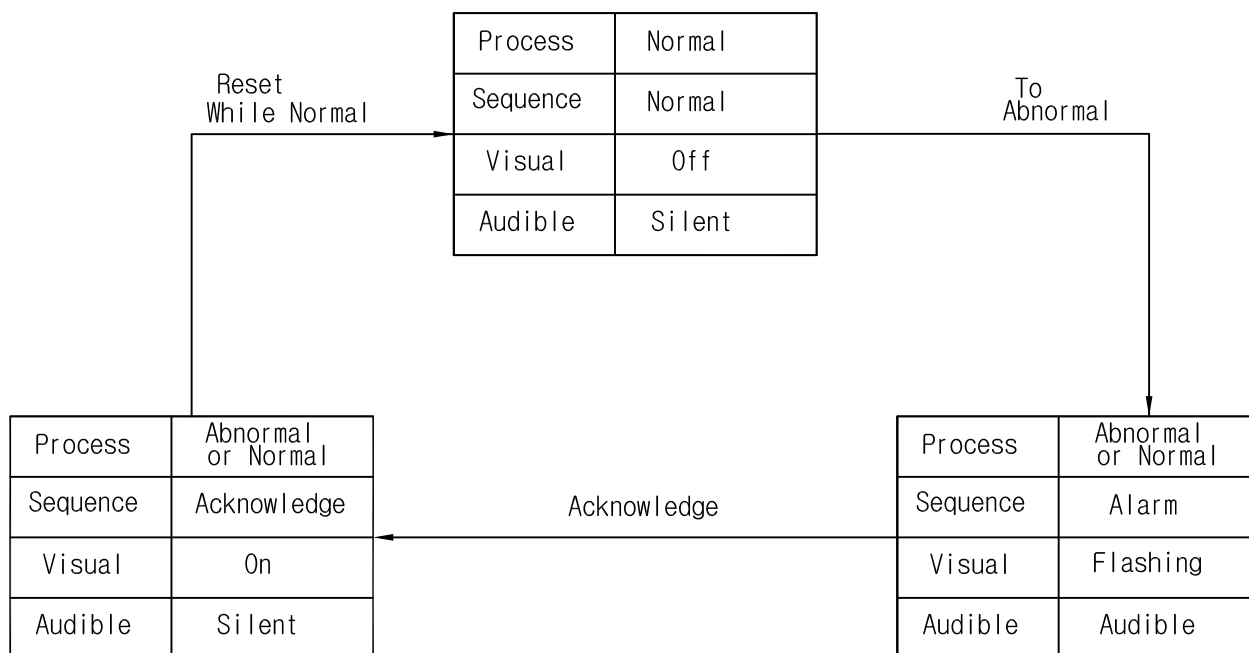
■ Sequence A Automatic Reset With Options



◎ BASIC SEQUENCE (A) OPTION

	NON LOCK TYPE			LOCK IN TYPE		
DESCRIPTION	1	2	3	1	2	3
ALARM INPUT 1	ON	ON	ON	ON	ON	ON
ALARM INPUT 2	ON	ON	ON	ON	ON	ON
VISIBLE 1	ON	ON	ON	ON	ON	ON
VISIBLE 2	ON	ON	ON	ON	ON	ON
BUZZER	ON	ON	ON	ON	ON	ON
ACKNOWLEDGE	ON	ON	ON	ON	ON	ON
TEST	ON	ON	ON	ON	ON	ON
SILENCE STOP	ON	ON	ON	ON	ON	ON
RELAY OUTPUT 1	ON	ON	ON	ON	ON	ON
RELAY OUTPUT 2	ON	ON	ON	ON	ON	ON
C T A	ON	ON	ON	ON	ON	ON

■ Sequence M Manual Reset



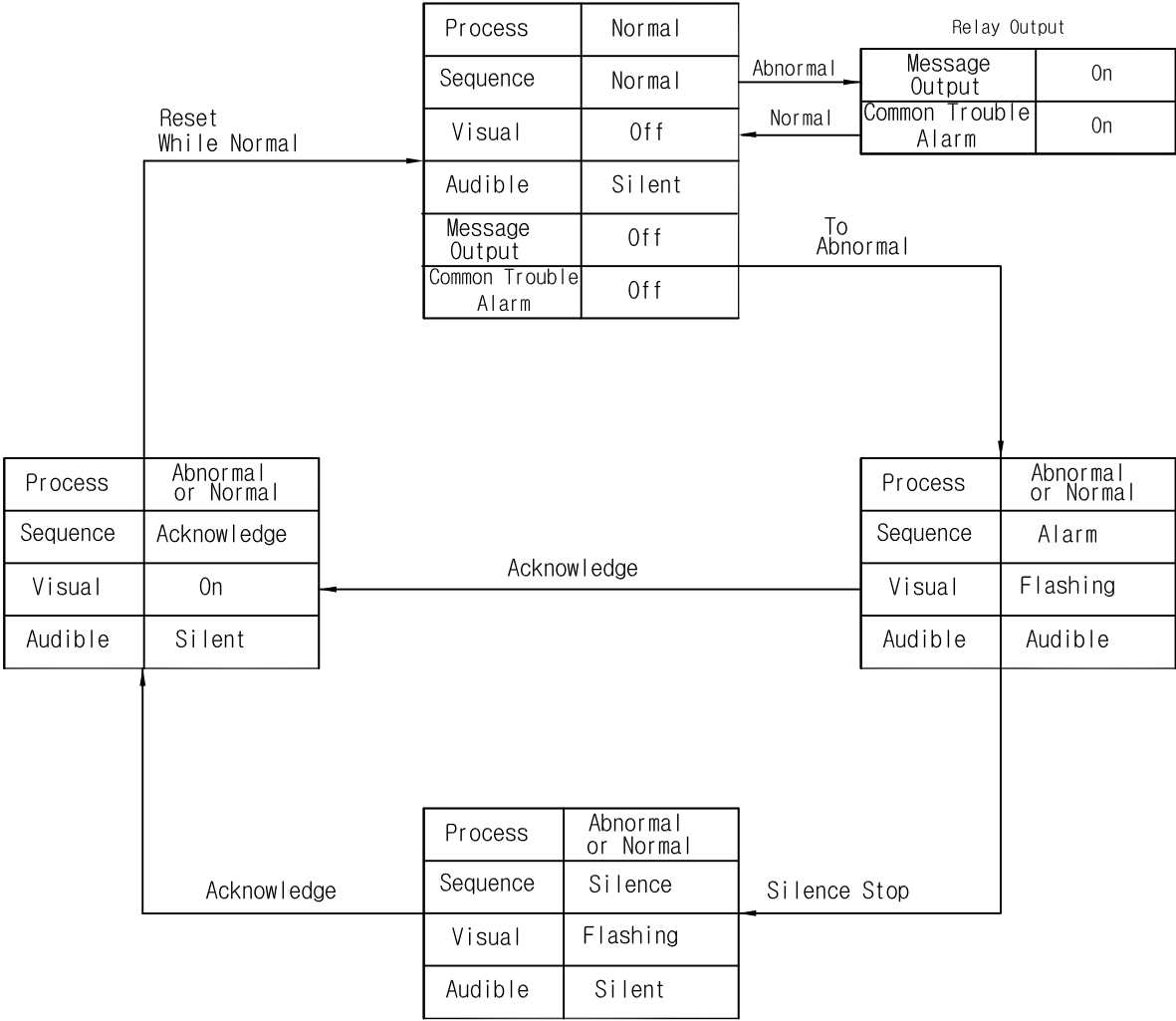
Sequence Features

1. Acknowledge, Reset and Test Pushbuttons.
2. Alarm Audible Device.
3. Lock-in of Momentary Alarms Until Acknowledged.
4. The Audible Device is Silenced and Flashing Stops When Acknowledged.
5. Manual Reset of Acknowledged Alarm Indications After Process Conditions Return to Normal.
6. Operation Test.

⊙ INSPECTION SEQUENCE (M)

	NON LOCK TYPE			LOCK IN TYPE		
DESCRIPTION	1	2	3	1	2	3
ALARM INPUT						
LAMP VISIBLE						
BUZZER						
ACKNOWLEDGE						
RESET						
TEST						
LAMP TEST						

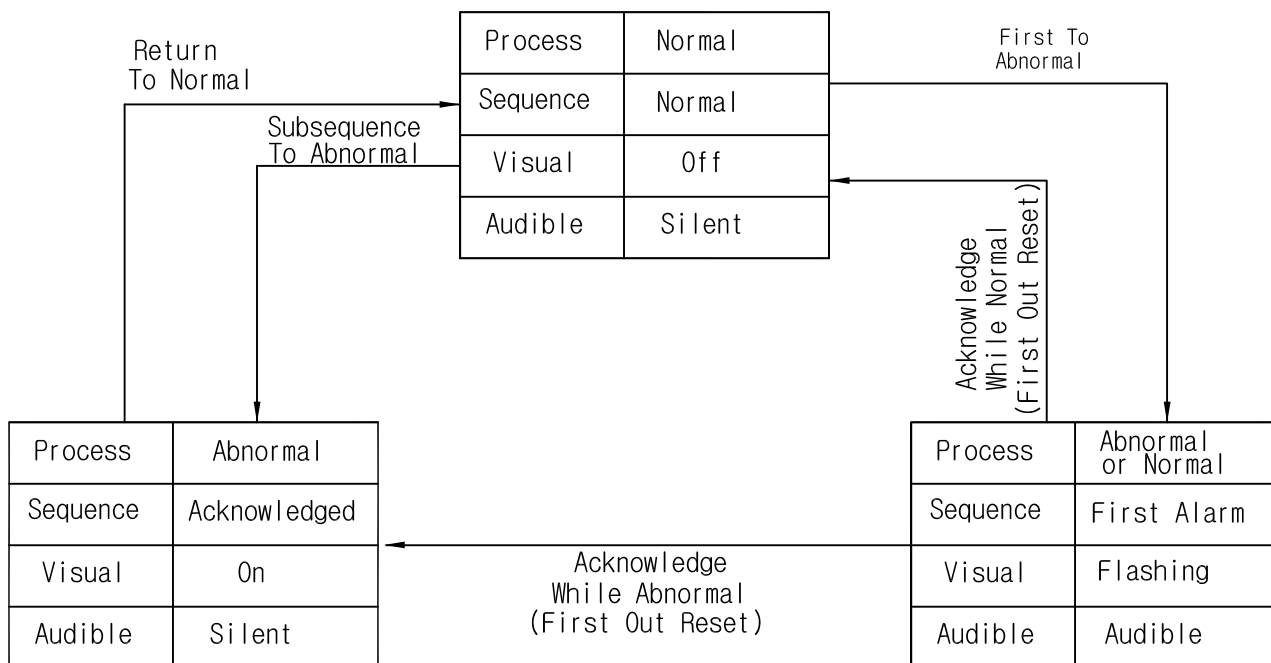
Sequence M Manual Reset With Options



INSPECTION SEQUENCE (M) OPTION

DESCRIPTION	NON LOCK TYPE			LOCK IN TYPE		
	1	2	3	1	2	3
ALARM INPUT 1	1	1		1	1	
ALARM INPUT 2	1	1		1	1	
VISIBLE 1	1	1		1	1	
VISIBLE 2	1	1		1	1	
BUZZER	1	1		1	1	
ACKNOWLEDGE		1			1	
RESET			1			1
TEST			1			1
SILENCE STOP		1			1	
RELAY OUTPUT 1	1	1		1	1	
RELAY OUTPUT 2	1	1		1	1	
C T A	1	1		1	1	

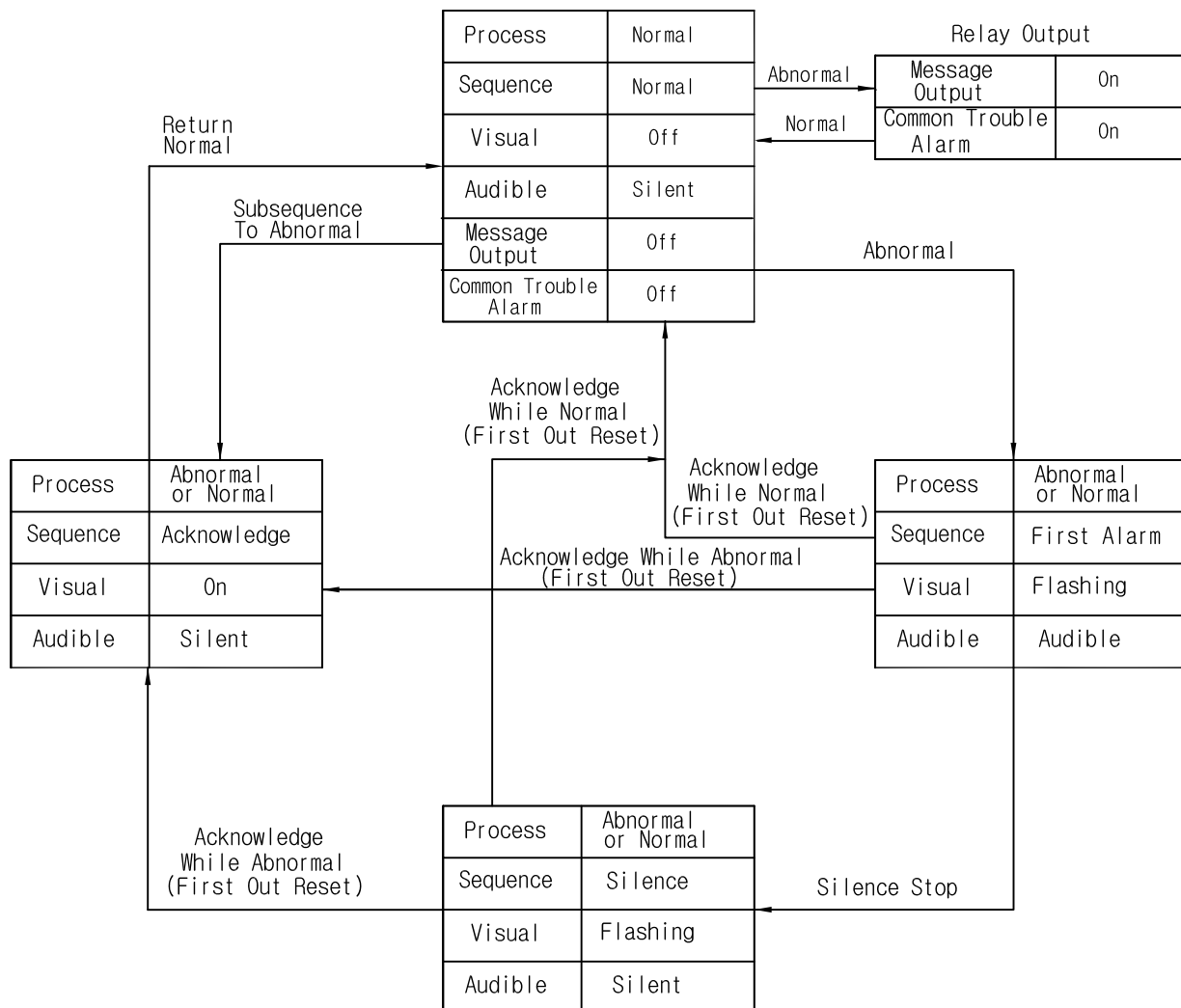
■ F1A Sequence Diagram



◎ FIRST OUT SEQUENCE (F1A)

DESCRIPTION	NON LOCK TYPE			LOCK IN TYPE		
	1	2	3	1	2	3
ALARM INPUT 1	■	■		■	■	
ALARM INPUT 2	■	■		■	■	
ALARM INPUT 3	■	■		■	■	
VISIBLE 1	■	■	■	■	■	■
VISIBLE 2	■	■	■	■	■	■
VISIBLE 3	■	■	■	■	■	■
BUZZER	■	■	■	■	■	■
ACKNOWLEDGE			■			■
TEST			■			■

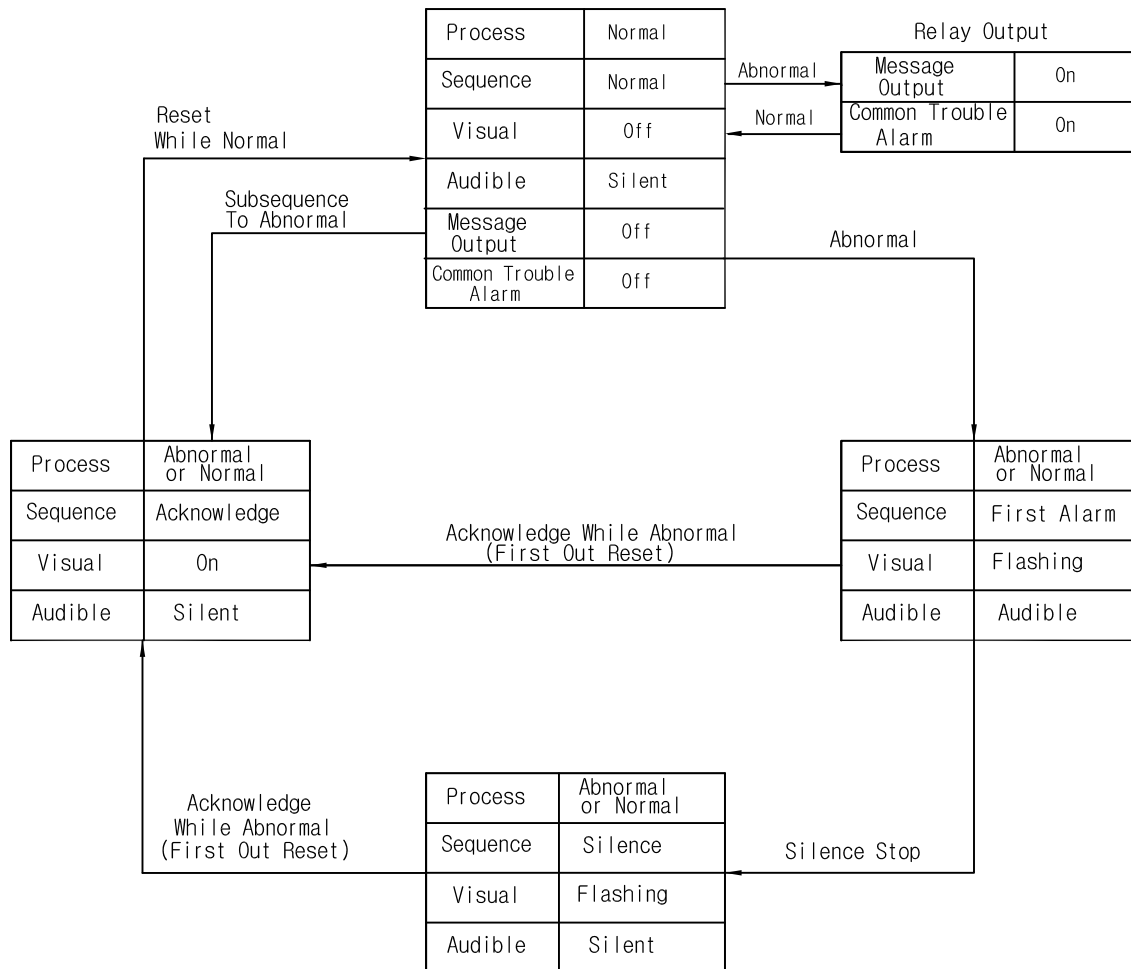
■ F1A Sequence With Option



◎ FIRST OUT SEQUENCE (F1A) OPTION

DESCRIPTION	NON LOCK TYPE			LOCK IN TYPE		
	1	2	3	1	2	3
ALARM INPUT 1	■	■		■	■	
ALARM INPUT 2	■	■		■	■	
ALARM INPUT 3	■	■		■	■	
VISIBLE 1	■	■	■	■	■	■
VISIBLE 2	■	■	■	■	■	■
VISIBLE 3	■	■	■	■	■	■
BUZZER	■	■	■	■	■	■
ACKNOWLEDGE		■		■	■	■
TEST			■			■
SILENCE STOP		■			■	■
RELAY OUTPUT 1	■	■		■	■	
RELAY OUTPUT 2	■	■		■	■	
RELAY OUTPUT 3	■	■		■	■	
C T A	■	■		■	■	

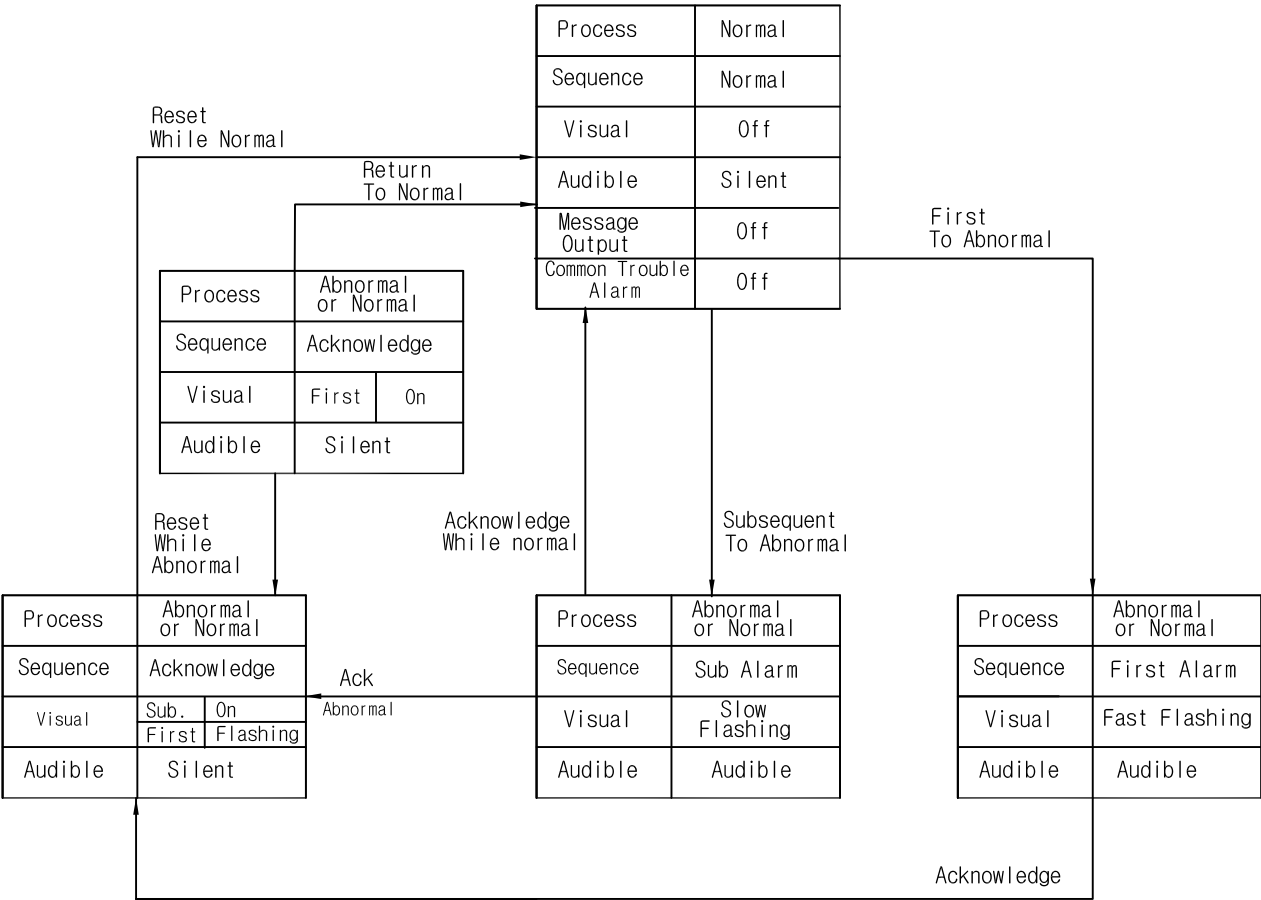
■ F1M Sequence With Options



◎FIRST OUT SEQUENCE (F1M) OPTION

	NON LOCK TYPE			LOCK IN TYPE		
DESCRIPTION	1	2	3	1	2	3
ALARM INPUT 1	1	1	1	1	1	1
ALARM INPUT 2	1	1	1	1	1	1
ALARM INPUT 3	1	1	1	1	1	1
VISIBLE 1	1	1	1	1	1	1
VISIBLE 2	1	1	1	1	1	1
VISIBLE 3	1	1	1	1	1	1
BUZZER	1	1	1	1	1	1
ACKNOWLEDGE	1	1	1	1	1	1
TEST	1	1	1	1	1	1
RESET	1	1	1	1	1	1
SILENCE STOP	1	1	1	1	1	1
RELAY OUTPUT 1	1	1	1	1	1	1
RELAY OUTPUT 2	1	1	1	1	1	1
RELAY OUTPUT 3	1	1	1	1	1	1
C T A	1	1	1	1	1	1

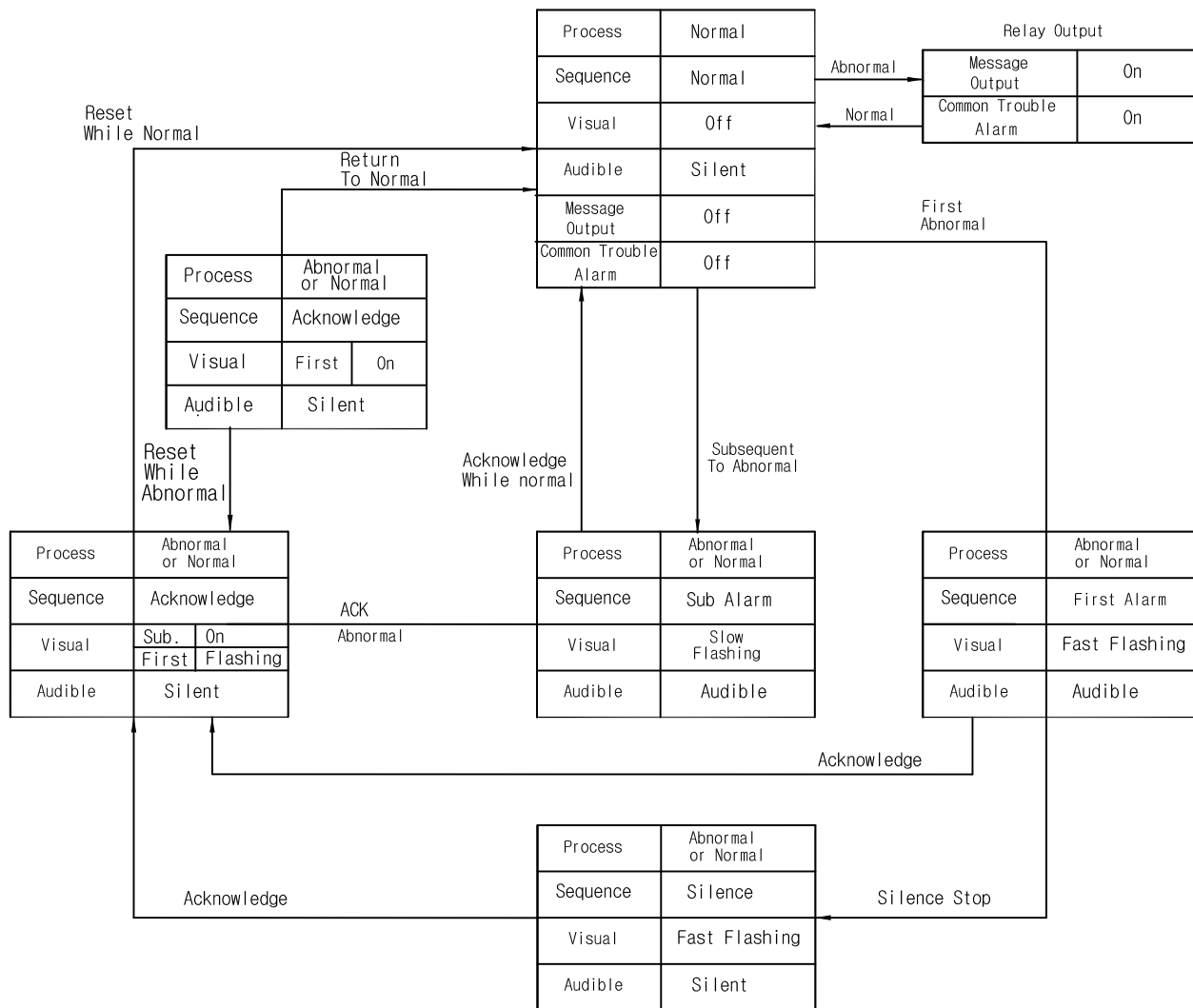
■ F2A Sequence Diagram



◎ FIRST OUT SEQUENCE (F2A)

	NON LOCK TYPE			LOCK IN TYPE		
DESCRIPTION	1	2	3	1	2	3
ALARM INPUT 1						
ALARM INPUT 2						
ALARM INPUT 3						
VISIBLE 1						
VISIBLE 2						
VISIBLE 3						
BUZZER						
ACKNOWLEDGE						
FIRSTOUT RESET						
TEST						

■ F2A Sequence With Option

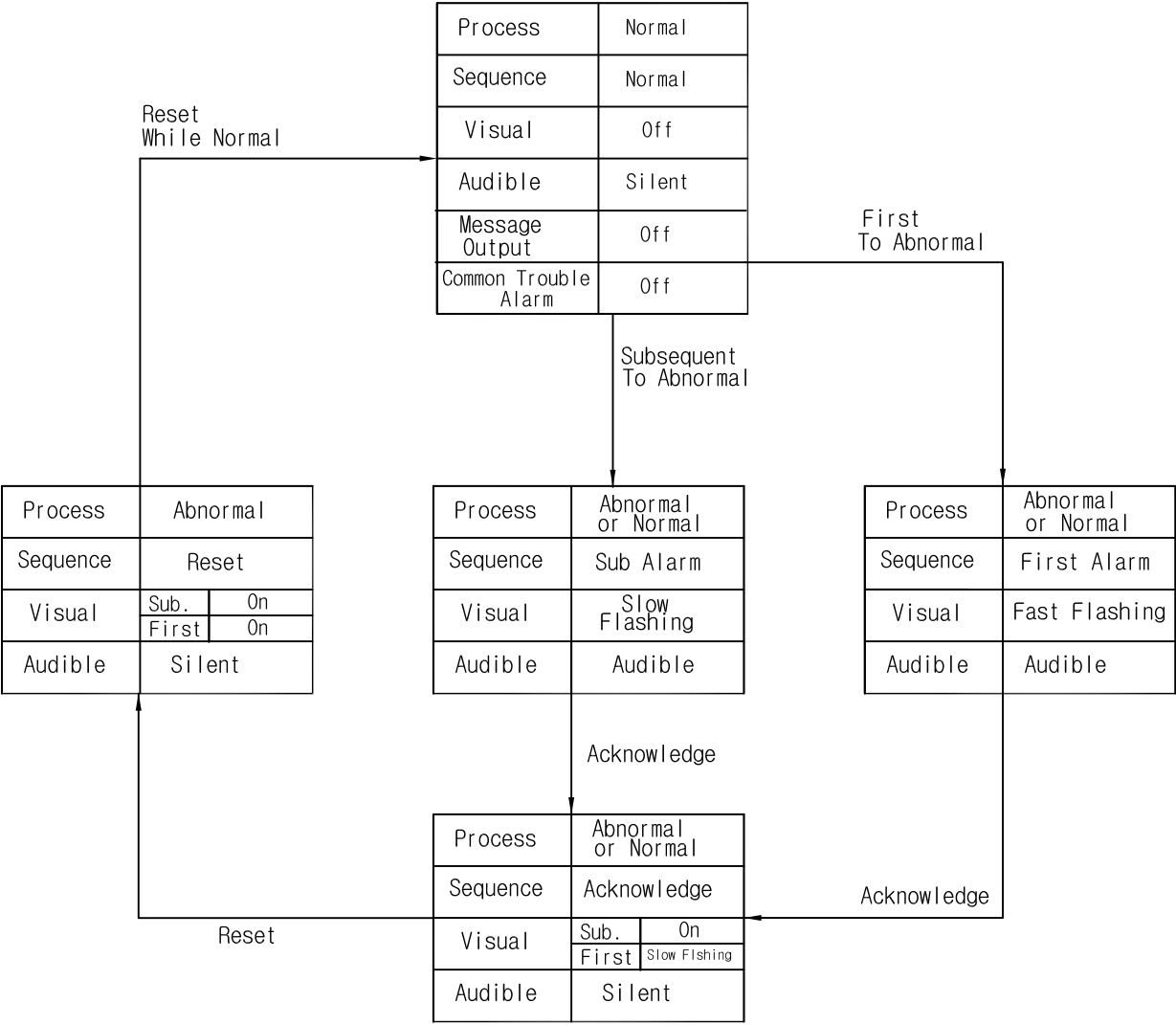


○FIRST OUT SEQUENCE (F2A) OPTION

DESCRIPTION	NON LOCK TYPE			LOCK IN TYPE		
	1	2	3	1	2	3
ALARM INPUT 1	■	■	■	■	■	■
ALARM INPUT 2	■	■	■	■	■	■
ALARM INPUT 3	■	■	■	■	■	■
VISIBLE 1	■	■	■	■	■	■
VISIBLE 2	■	■	■	■	■	■
VISIBLE 3	■	■	■	■	■	■
BUZZER	■	■	■	■	■	■
ACKNOWLEDGE	■	■	■	■	■	■
FIRST OUT RESET	■	■	■	■	■	■
TEST	■	■	■	■	■	■
SILENCE STOP	■	■	■	■	■	■
RELAY OUTPUT 1	■	■	■	■	■	■
RELAY OUTPUT 2	■	■	■	■	■	■
RELAY OUTPUT 3	■	■	■	■	■	■
C T A	■	■	■	■	■	■

■

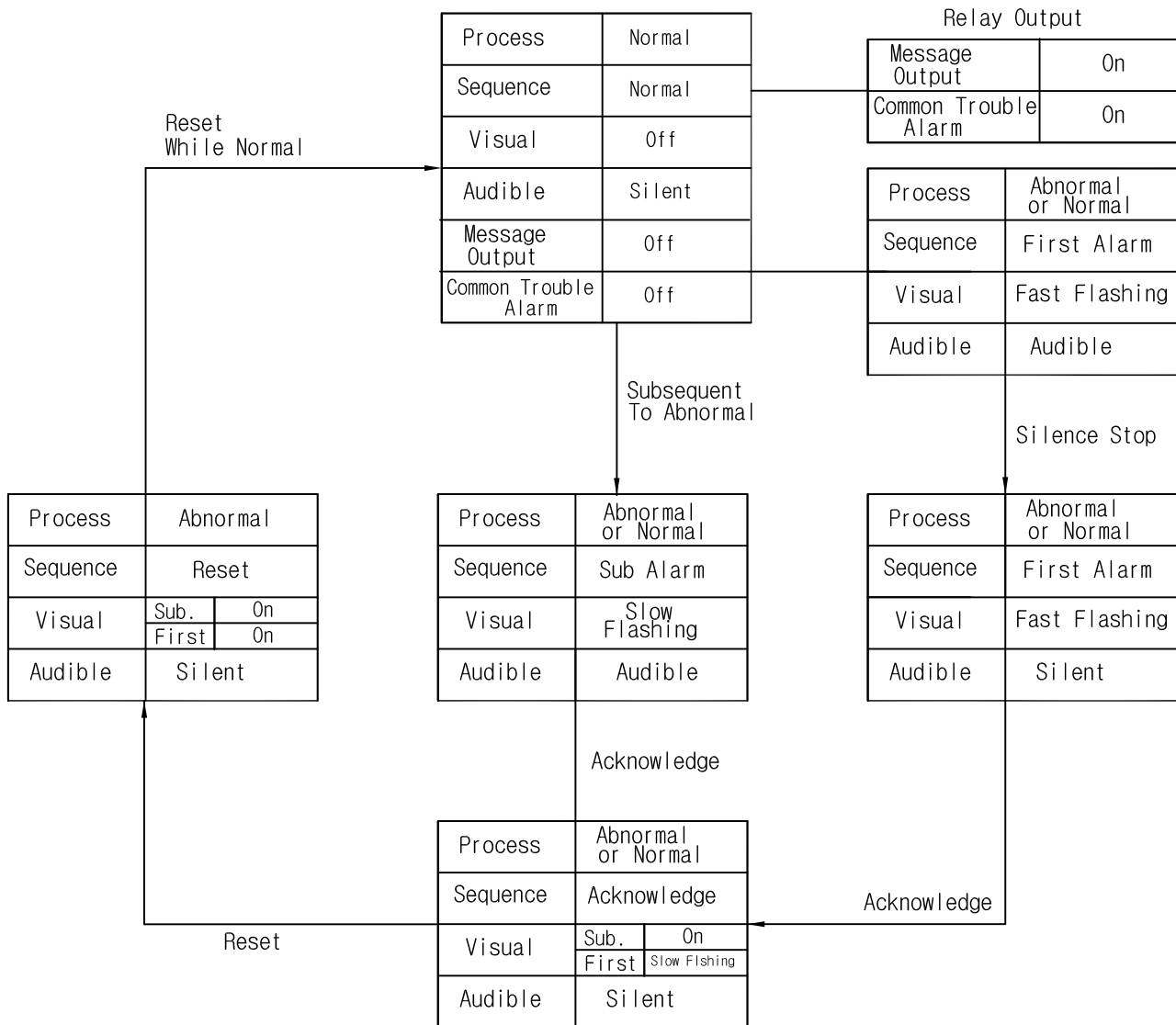
F2M Sequence Diagram



◎FIRST OUT SEQUENCE (F2M)

DESCRIPTION	NON LOCK TYPE			LOCK IN TYPE		
	1	2	3	1	2	3
ALARM INPUT 1	■■■■	■■■■■■■■■■		■■■■	■■■■■■■■■■	
ALARM INPUT 2	■■	■■		■■	■■	
ALARM INPUT 3	■■■■	■■■■		■■■■	■■■■	
VISIBLE 1	■■■■	■■■■■■■■■■	■■■■	■■■■	■■■■■■■■■■	■■■■
VISIBLE 2	■■	■■	■■■■	■■	■■	■■■■
VISIBLE 3	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■
BUZZER	■■■■		■■■■	■■■■		■■■■
ACKNOWLEDGE		■		■	■	■
FIRST OUT RESET		■		■	■	■
TEST			■■■■			■■■■

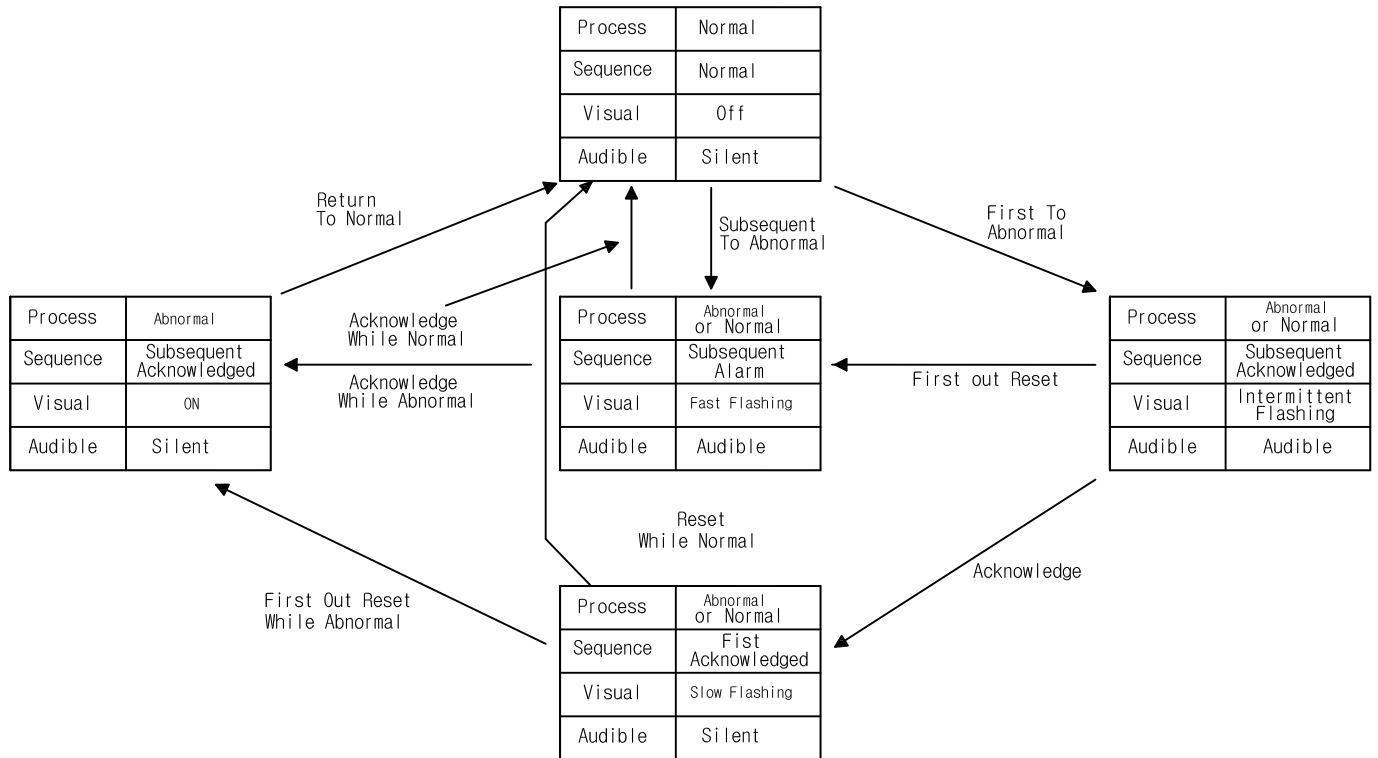
■ F2M Sequence With Options



◎ FIRST OUT SEQUENCE (F2M) OPTION

DESCRIPTION	NON LOCK TYPE			LOCK IN TYPE		
	1	2	3	1	2	3
ALARM INPUT 1	■	■	■	■	■	■
ALARM INPUT 2	■	■	■	■	■	■
ALARM INPUT 3	■	■	■	■	■	■
VISIBLE 1	■	■	■	■	■	■
VISIBLE 2	■	■	■	■	■	■
VISIBLE 3	■	■	■	■	■	■
BUZZER	■	■	■	■	■	■
ACKNOWLEDGE	■	■	■	■	■	■
FIRST OUT RESET	■	■	■	■	■	■
TEST	■	■	■	■	■	■
SILENCE STOP	■	■	■	■	■	■
RELAY OUTPUT 1	■	■	■	■	■	■
RELAY OUTPUT 2	■	■	■	■	■	■
RELAY OUTPUT 3	■	■	■	■	■	■
C T A	■	■	■	■	■	■

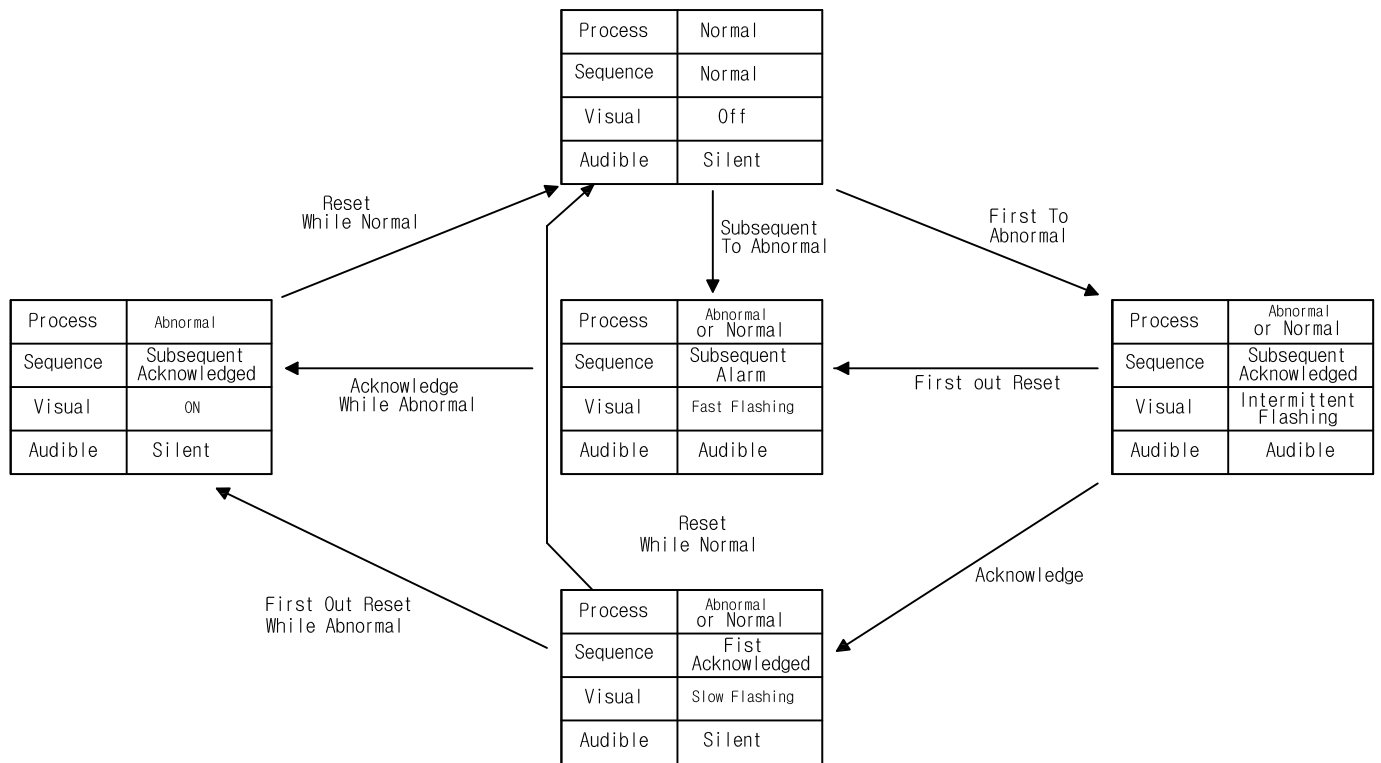
■ F3A Sequence Diagram



■ Sequence Table

LINE	PROCSS CONDITIONS		PUSHBUTTON OPERATION	SEQUENCE STATE	VISUAL DISPLAY	ALARM AUDIBLE DEVICE	REMARKS
1	NORMAL		—	NORMAL	OFF	SILENT	
2	FIRST	ABNORMAL	—	FIRST ALARM	INTERMITTENT FLASHING	AUDIBLE	LOCK IN
3	SUB.	ABNORMAL		SUB. ALARM	FAST FLASHING	AUDIBLE	LOCK IN
4	FIRST	ABNORMAL OR NORMAL	FIRST OUT RESET BEFORE ACKNOWLEDGE	TO LINE 3			FIRST OUT RESET
5	FIRST	ABNORMAL OR NORMAL	ACKNOWLEDGE	FIRST ACKNOWLEDGED	SLOW FLASHING	SILENT	FIRST OUT RESET REQUIRED
6A	SUB.	ABNORMAL		SUB. ACKNOWLEDGED	ON	SILENT	MAINTAINED ALARM
6B	SUB.	NORMAL		TO LINE 8			MOMENTARY ALARM
7A	FIRST	ABNORMAL	FIRST OUT RESET AFTER ACKNOWLEDGE	TO LINE 6A			FIRST OUT RESET
7B	FIRST	NORMAL		TO LINE 8			FIRST OUT RESET
8	NORMAL		—	NORMAL	OFF	SILENT	AUTOMATIC RESET

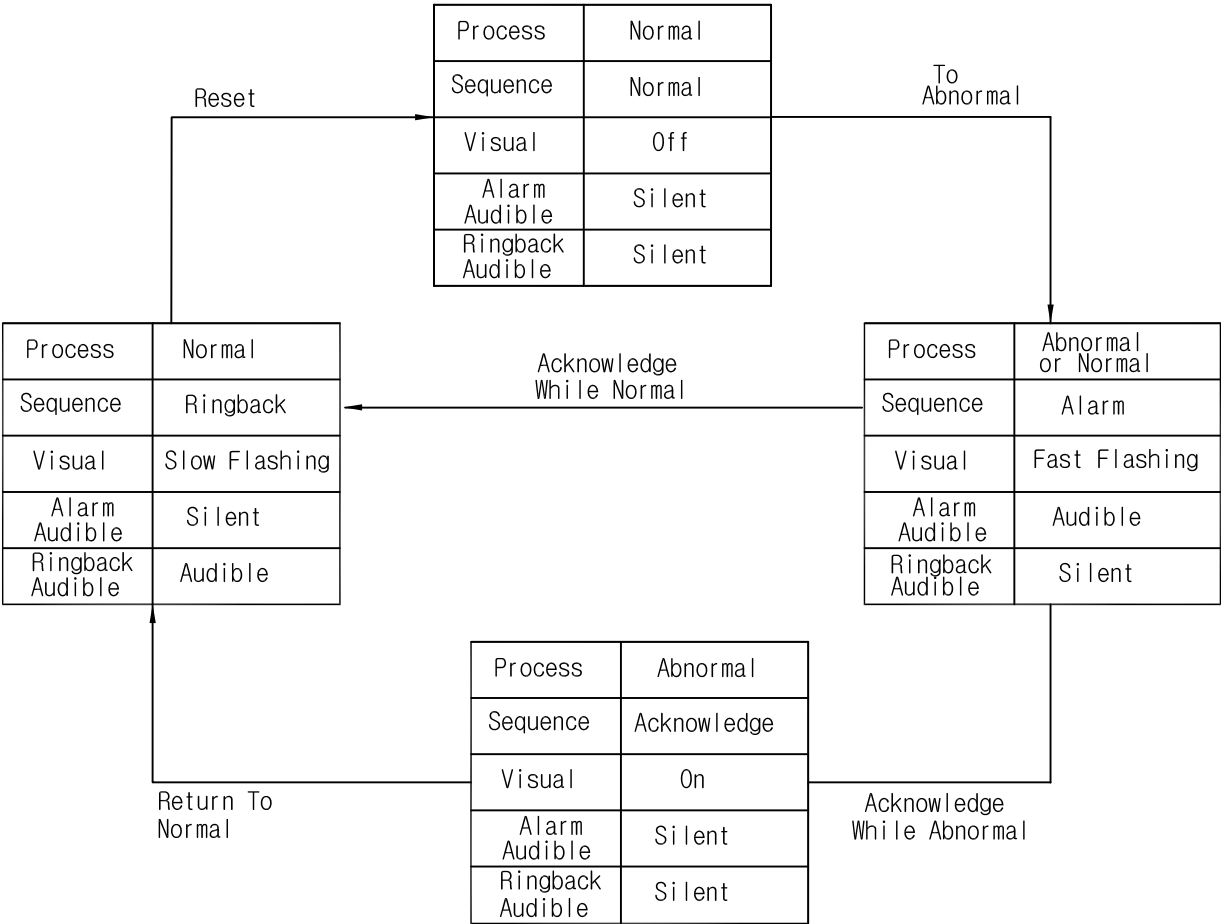
■ F3M Sequence Diagram



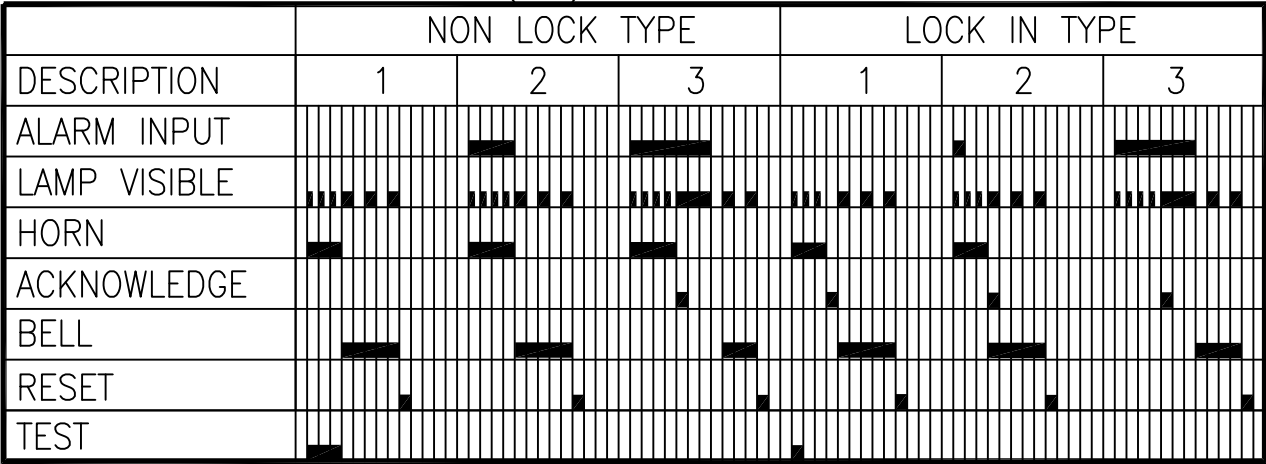
■ Sequence Table

LINE	PROCCS CONDITIONS		PUSHBUTTON OPERATION	SEQUENCE STATE	VISUAL DISPLAY	ALARM AUDIBLE DEVICE	REMARKS
1	NORMAL		—	NORMAL	OFF	SILENT	
2	FIRST	ABNORMAL	—	FIRST ALARM	INTERMITTENT FLASHING	AUDIBLE	LOCK IN
3	SUB.	ABNORMAL		SUB. ALARM	FAST FLASHING	AUDIBLE	LOCK IN
4	FIRST	ABNORMAL OR NORMAL	FIRST OUT RESET BEFORE ACKNOWLEDGE	TO LINE 3			FIRST OUT RESET
5	FIRST	ABNORMAL OR NORMAL	ACKNOWLEDGE	FIRST ACKNOWLEDGED	SLOW FLASHING	SILENT	FIRST OUT RESET REQUIRED
6A	SUB.	ABNORMAL		SUB. ACKNOWLEDGED	ON	SILENT	MAINTAINED ALARM
6B	SUB.	NORMAL		TO LINE 8			MOMENTARY ALARM
7A	FIRST	ABNORMAL	FIRST OUT RESET AFTER ACKNOWLEDGE	TO LINE 6A			FIRST OUT RESET
7B	FIRST	NORMAL		TO LINE 8			FIRST OUT RESET
8	NORMAL		—	RESET	OFF	SILENT	AUTOMATIC RESET

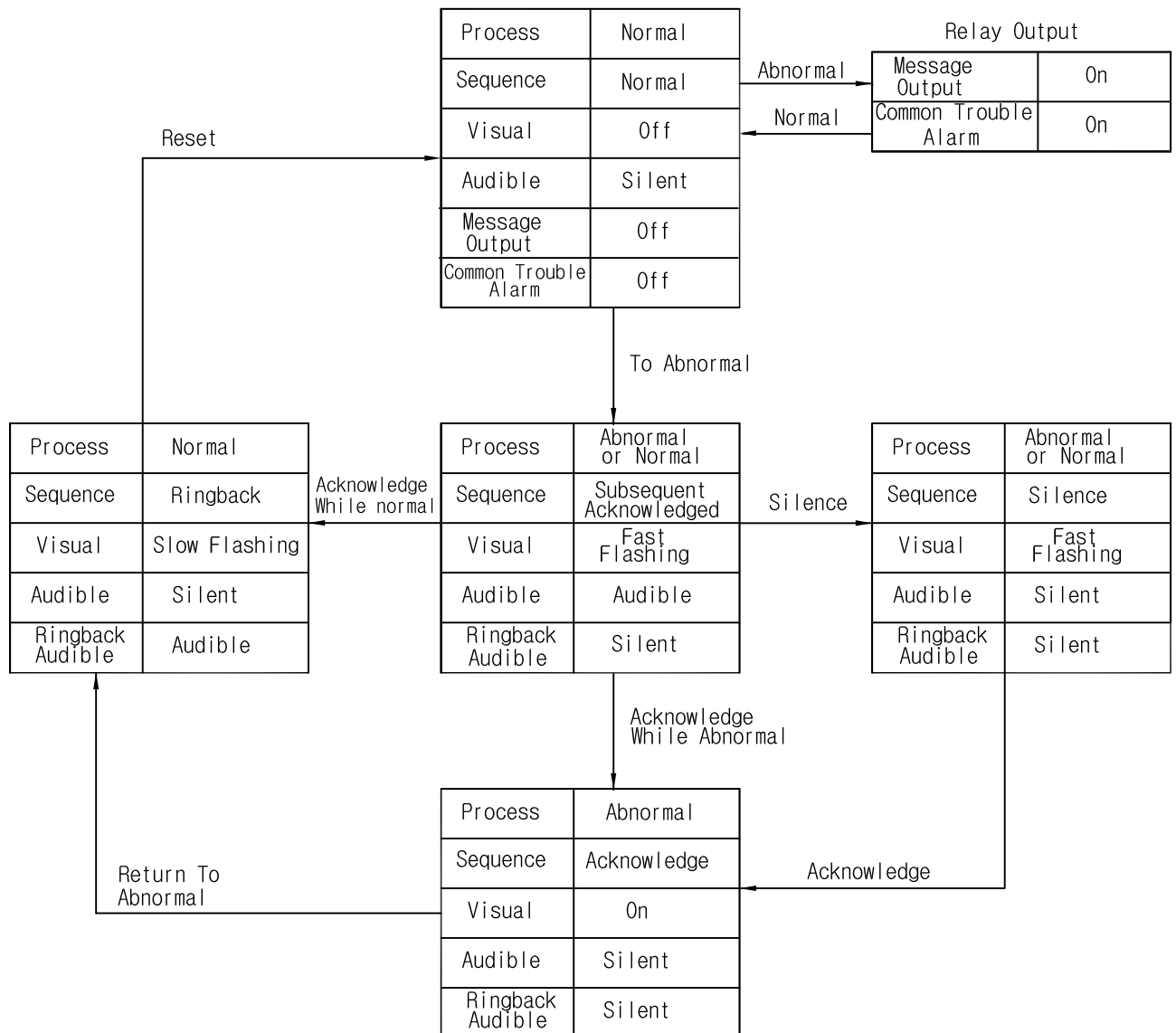
■ Ring Back Sequence



◎ RING BACK SEQUENCE (RB)



■ Ring Back Sequence With Options



○ RING BACK SEQUENCE (RB) OPTION

DESCRIPTION	NON LOCK TYPE			LOCK IN TYPE		
	1	2	3	1	2	3
ALARM INPUT 1	■	■		■	■	
ALARM INPUT 2	■	■		■	■	
VISIBLE 1	■	■	■	■	■	■
VISIBLE 2	■	■	■	■	■	■
BUZZER	■	■		■	■	
BELL	■	■		■	■	
ACKNOWLEDGE		■			■	
RESET		■			■	
TEST			■			■
SILENCE STOP		■			■	
RELAY OUTPUT 1	■	■		■	■	
RELAY OUTPUT 2	■	■		■	■	
C T A	■	■		■	■	