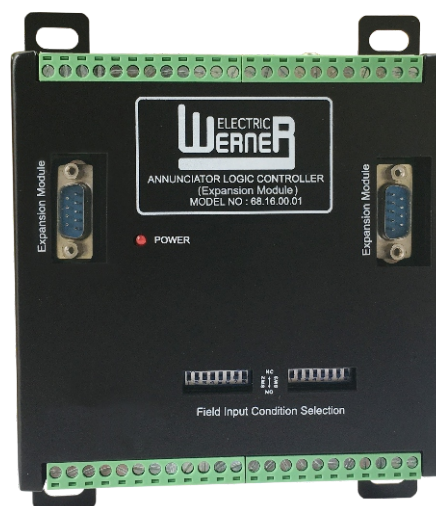
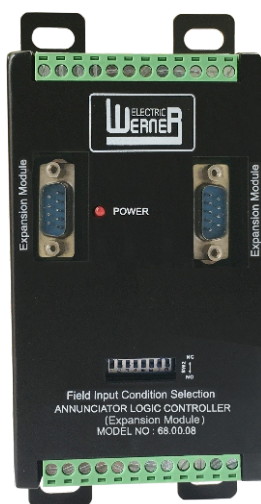


PRODUCT SPECIFICATION

68 Series Annunciator logic Controllers



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Annunciator Logic Controllers



WERNER'S 68 series annunciator logic controller can be used for integrated alarm and supervision in various manufacturing processes. In highly automated and robotized plants, sophisticated control technology is employed to ensure safe operation.

Features Overview

- ☐ Highly reliable in the event of emergency
- ☐ Sleek & economical, saves space in panel
- ☐ Basic module available with 16 I/P & 16 O/P
- ☐ Expansion module available in 16 & 8 I/P & O/P

Highlights

- ☐ Available with many circuits & sequence patterns
- ☐ Programming through pre-set switches in this module
- ☐ Options of redundancy and modbus protocols available in the module

In the event of accidental control circuit breakdown, 68 series annunciator plays a great role in monitoring process condition until the system returns to normal conditions. The annunciator contains 15 main and auxiliary circuits, with 16 sequence patterns. Mainly confirms to JIS/ISA standards and incorporates many first-out operations. As all signals necessary for a system are provided, one unit suffices to construct an annunciator system.

No instruction word or grammar is necessary for programming, as such operation is greatly facilitated and danger of settings change due to power failure or noise is eliminated. As the input/output circuit is isolated from control circuit, excellent noise-resistance characteristics are obtained. CPU circuits are under supervision at all times due to the original self-diagnostic function.

General:

68 Series Annunciator Logic Controller can be used for integrated alarm and supervision in various manufacturing processes. In highly automated and robotized plants, sophisticated control technology is employed to ensure safe operation.

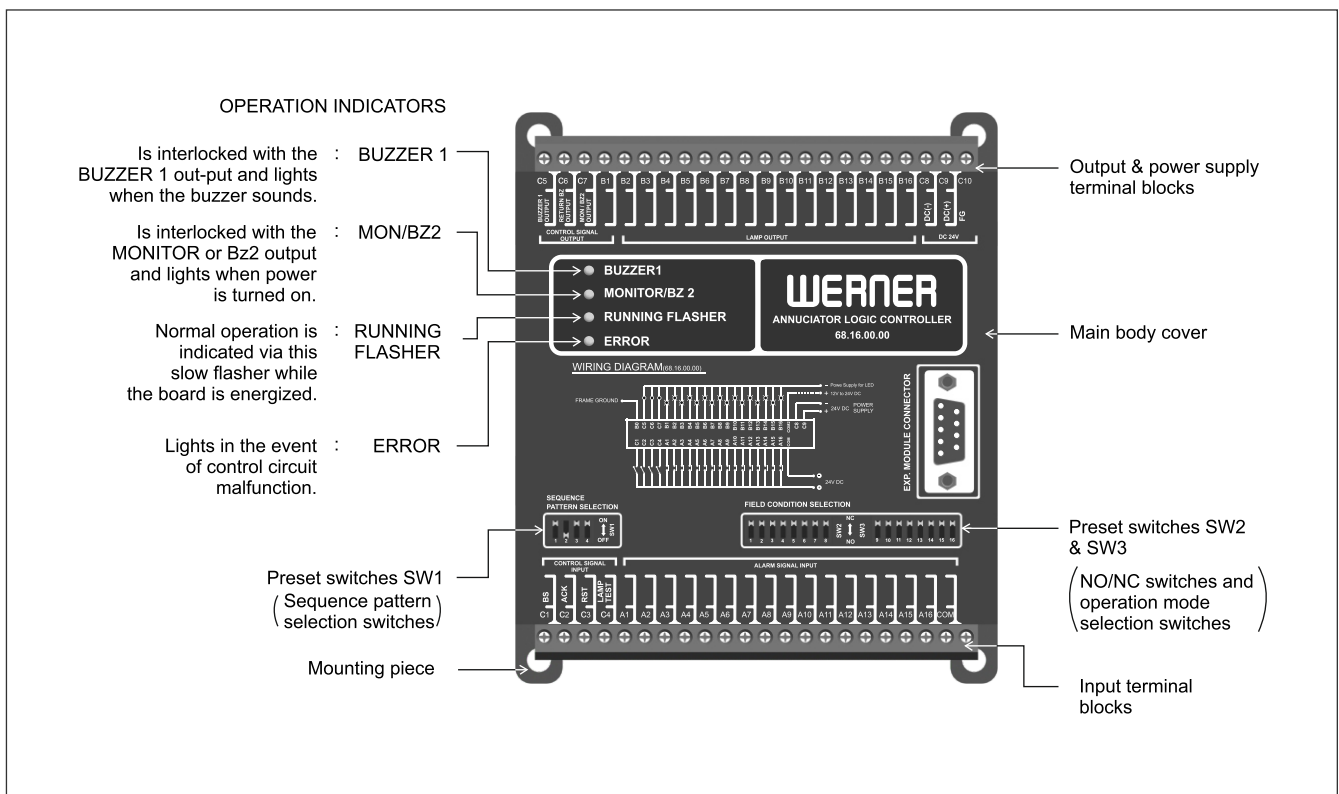
In the event of accidental control circuit breakdown, an annunciator plays a great role in monitoring process condition until the system returns to normal conditions.

Features :

1. High reliability in the event of emergency & Good human interface.
2. Good form, design and low cost.
3. Many circuits and sequence patterns
The annunciator contains 15 main and auxiliary circuits, and 16 sequence patterns. It mainly conforms to JIS/ISA standards and incorporates many first-out operations. As all signals necessary for a system are provided, one unit suffices to construct an annunciator system.
4. Programming via preset switches
No instruction word or grammar is necessary for programming. Thus, operation is greatly facilitated and the danger of setting change due to power failure or noise is eliminated.
5. Highly reliable design, environment - and noise-resistant
As the input/output circuit is isolated from the control (CPU) circuit, excellent noise -resistance characteristics are obtained. The CPU circuits is under supervision at all times due to the original self-diagnostic function.



Annunciator Logic Controller Structure



Specifications

Item		Contents
Control power	Rated Voltage	24 VDC
	Tolerance	±20%
	Allowable ripple	10% max
Lamp power	Rated voltage	24VDC
	Rated current	40 mA (approx.)
	Tolerance	+20% max. (The lower limit is subject to the lamp rating.)
	Allowable ripple	48% max.
Alarm input	Input mode	Mechanical contact (NO or NC) Solid state input is also acceptable.
	Signal level	"L" 0 to 2V (DC) "H" Control Voltage ±2V
	Input current	Approx. 7mA (Input resistance approx. 3.3KΩ)
	Delay time	Approx. 30 msec
Operational test i/p Lamp test input Buzzer stop input Acknowledge input Reset input	Input mode	Mechanical contact (NO or NC) Solid-state input is also acceptable.
	Signal level	"L" 0 to 2V (DC) "H" Control voltage ±2V
	Input current	Approx. 7mA (Input resistance approx. 3. 3KΩ)
	Delay time	Approx. 30 msec
Lamp output	Output mode	Open Collector
	Output capacity	250 mA max
Buzzer output Monitor output	Output mode	Open Collector
	Output capacity	250 mA max.
First-out Circuit	Circuit mode	Solid-state forced interlock
	Resolution	40msec min.
Current draw		440mA max. (When all inputs are on.)
Noise resistance	Common code	1,000V [1μs]
Operating temperature		-10°C to +50°C
Operating humidity		45% to 85%
Storage temperature		-25° C to +85°C
Insulation resistance		100MΩ min. (500VDC megger between live part and ground) See (6-1).
Dielectric strength		1,500VAC, 1 minute (between live part and ground) See (6-1).
Vibration resistance (Damage limits)		50m/sec ² (Approx. 5G) 10 to 55Hz
Shock resistance (Damage limits)		500m/sec ² (Approx. 50G)

Weight

Weight (Approx.)	1.8kg
------------------	-------

Model Number Structure - Annunciator Logic Controllers



68.16.00.01

Series

68 Series Annunciator Logic Controller

Main Board IO's

16 input and output

CPU Redundancy

00	Without Redundancy
01	With Redundancy

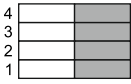
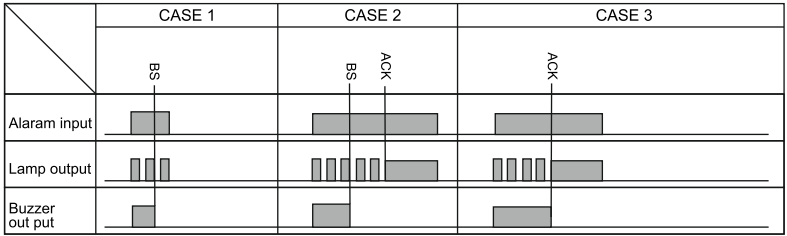
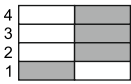
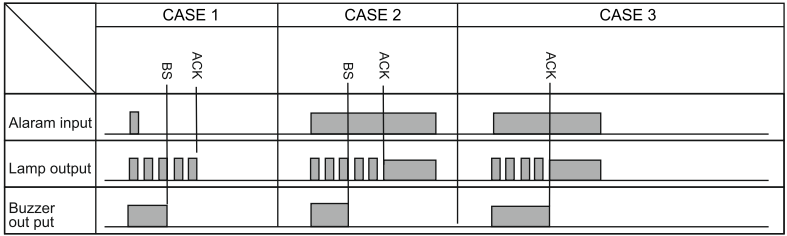
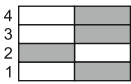
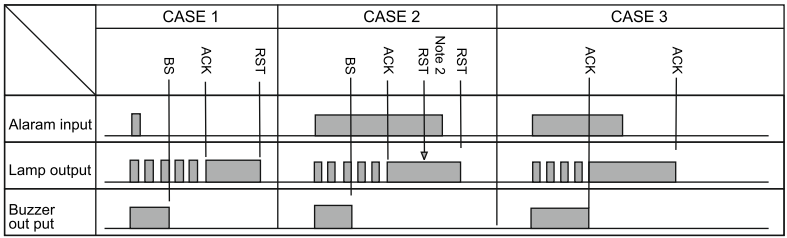
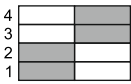
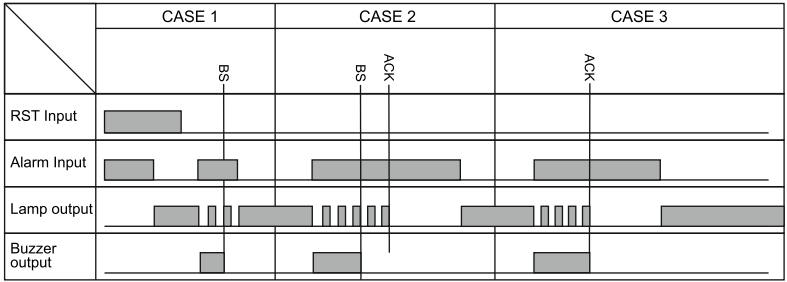
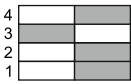
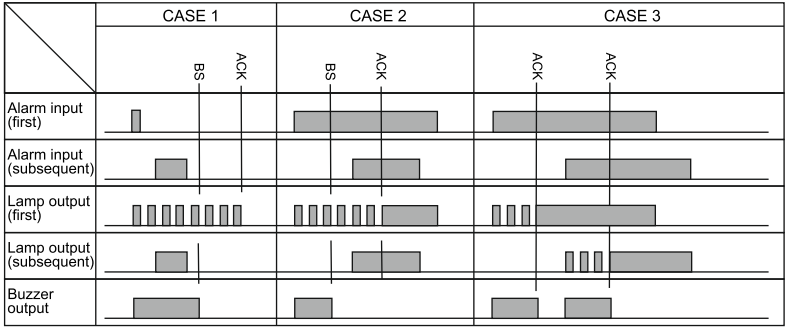
Modbus Communication Protocol

00	Without Modbus
01	With Modbus

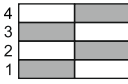
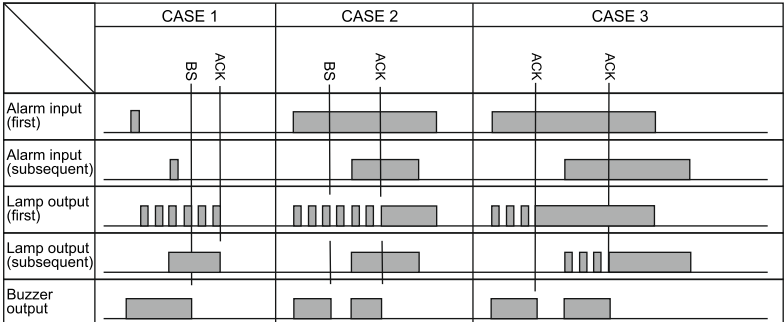
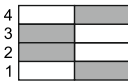
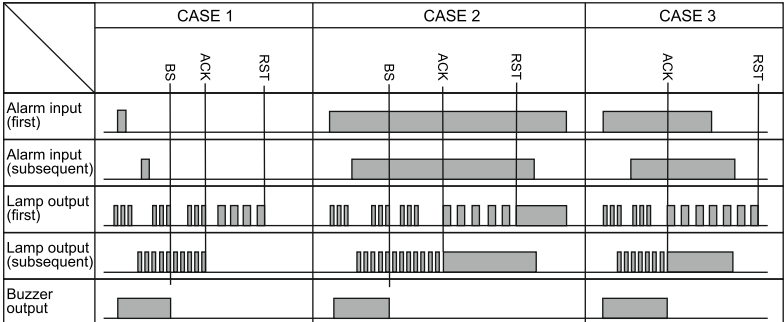
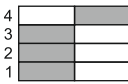
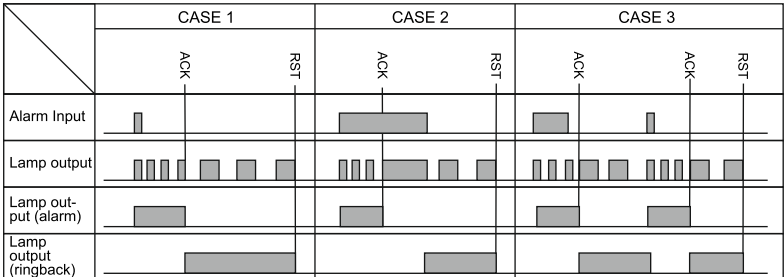
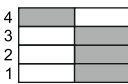
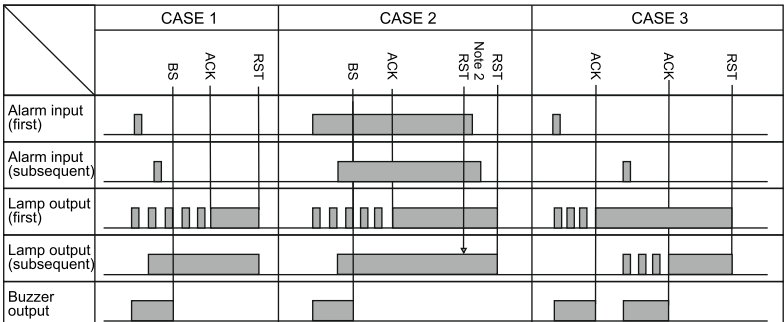
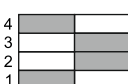
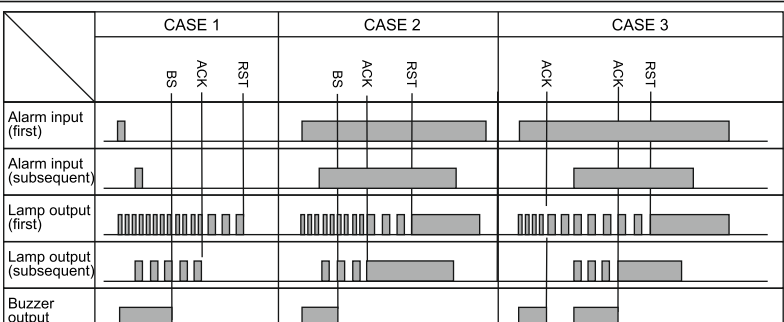
Model Number Selection

Appearance	Module Type	Number of IO's	Model No.
	IO Expansion Module	8 Input 8 Output	68.00.08
	IO Expansion Module	16 Input 16 Output	68.00.16

Sequence Pattern & Selection Table

S.No.	Sequence Type	ISA Standard	Switch Positions	Sequence pattern
1	Automatic Reset	A-1, 4	ON ↔ OFF 	
2	Automatic Reset	A-1	ON ↔ OFF 	
3	Manual Reset	M-1	ON ↔ OFF 	
4	Sequence pattern No. 4	—	ON ↔ OFF 	
5	Automatic reset first out with no subsequent alarm state	F1A-1	ON ↔ OFF 	

Sequence Pattern & Selection Table

S.No.	Sequence Type	ISA Standard	Switch Positions	Sequence pattern
6	Sequence pattern No. 6	F2A-1	ON ↔ OFF 	
7	Automatic reset first out with first out flashing and reset pushbutton	F3A-1, 3	ON ↔ OFF 	
8	Ring back	R	ON ↔ OFF 	
9	Manual reset first out with no subsequent alarm flashing and silence pushbutton	F2M-1	ON ↔ OFF 	
10	Sequence pattern No. 10	—	ON ↔ OFF 	

Sequence Pattern & Selection Table

S.No.	Sequence Type	ISA Standard	Switch Positions	Sequence pattern
11	Sequence pattern No. 11	—	ON ↔ OFF	
12	Sequence pattern No. 12	—	ON ↔ OFF	
13	Sequence pattern No. 13	—	ON ↔ OFF	
14	Sequence pattern No. 14	—	ON ↔ OFF	
15	Sequence pattern No. 15	—	ON ↔ OFF	

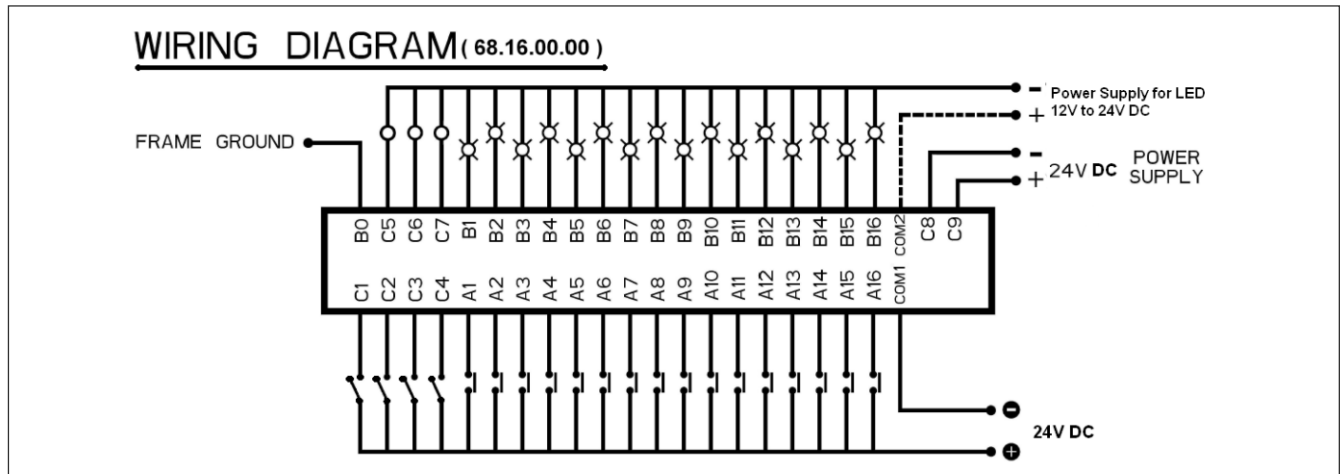
Sequence Pattern & Selection Table

S.No.	Sequence Type	ISA Standard	Switch Positions	Sequence pattern																																																											
16	Sequence pattern No. 16	—	ON ↔ OFF 4 3 2 1	<table><tr><th rowspan="2"></th><th colspan="3">CASE 1</th><th colspan="3">CASE 2</th><th colspan="3">CASE 3</th></tr><tr><th>BS</th><th>RST</th><th></th><th>BS</th><th>ACK</th><th>RST</th><th>ACK</th><th>RST</th><th></th></tr><tr><td>Alarm input</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Lamp output</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Buzzer output (alarm)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Buzzer output (ringback)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		CASE 1			CASE 2			CASE 3			BS	RST		BS	ACK	RST	ACK	RST		Alarm input										Lamp output										Buzzer output (alarm)										Buzzer output (ringback)									
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Buzzer output (ringback)																																																															

NOTE

BS	BUZZER STOP
ACK	ACKNOWLEDGE
RST	(MANUAL) RESET
ISA	Industry Standard Architecture - 18.1-1979 (R2004)

Wiring Diagram



Terminal Arrangement and Input/Output Circuit

INPUT TERMINALS

	Terminal No.	Terminal Name	Operation	Equivalent Circuit
CONTROL SIGNAL INPUT	C1	B S	Buzzer stop input	
	C2	A C K	ACKNOWLEDGE input	
	C3	R S T	Reset input	
	C4	LAMP TEST	Lamp test input	
ALARM SIGNAL INPUT	A1		Alarm input 1	
	A2		Alarm input 2	
	A3		Alarm input 3	
	A4		Alarm input 4	
	A5		Alarm input 5	
	A6		Alarm input 6	
	A7		Alarm input 7	
	A8		Alarm input 8	
	A9		Alarm input 9	
	A10		Alarm input 10	
	A11		Alarm input 11	
	A12		Alarm input 12	
	A13		Alarm input 13	
	A14		Alarm input 14	
	A15		Alarm input 15	
	A16		Alarm input 16	
	COM1	24V DC*	Control input Common	

OUTPUT TERMINALS

	Terminal No.	Terminal Name	Operation	Equivalent Circuit
CONTROL SIGNAL OUTPUT	C5	BUZZER 1 OUTPUT	Buzzer(1) output	
	C6	RETURN / BZ OUTPUT	Return Alarm buzzer output	
	C7	MON / BZ2 OUTPUT	Monitor output or buzzer (2) output	
LAMP OUTPUT	B1		Lamp output 1	
	B2		Lamp output 2	
	B3		Lamp output 3	
	B4		Lamp output 4	
	B5		Lamp output 5	
	B6		Lamp output 6	
	B7		Lamp output 7	
	B8		Lamp output 8	
	B9		Lamp output 9	
	B10		Lamp output 10	
	B11		Lamp output 11	
	B12		Lamp output 12	
	B13		Lamp output 13	
	B14		Lamp output 14	
	B15		Lamp output 15	
	B16		Lamp output 16	
	COM2	+12 to 24V DC	Control Output Common	
DC 24V	C8	DC (-)	Power Supply	
	C9	DC (+)	Power Supply	
	B0	FG	Frame ground	

Note : * '-' ve should be given at COM1, then the input side (A1-A16,C1-C4) will have a common '-' ve and '+' ve has to be given at Alarm inputs.



WERNER

Inventing Innovation...

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