FA-500 SERIES

Fire Alarm Control Panels

15 ZONE

10 ZONE

20 ZONE

5 ZONE

MADE IN TAIWAN

General

Fire control panels **FA-500 series 5, 10, 15, 20 zone detector**, produce alarms to alert the control panel operator and the residents when they receive a fire signal from detector normally. They consist of two different display modes, i.e individual zone lamps and trouble alarm lamps which can connect with the graphic display and annunciator.

Features

■ *Model : FA-500 Series – 1 Zone Bell*

FA-505   5 Supervise Zone Detector

FA-510   10 Supervise Zone Detector

FA-515   15 Supervise Zone Detector

FA-520   20 Supervise Zone Detector

■ Zoned visual red alarm LED and red FIRE indicators

■ Zoned visual yellow O/C fault LED.

■ Continuous signal during alarm.

■ Built-in battery charger.

■ Low/No power and battery detection.

■ Automatic loading and testing of battery.

■ Battery lead reversal protection.

■ Zone fire test and zone O/C fault test.

■ Fire storage (Double check of the fire signal)

■ Fire alarm and trouble buzzer.

■ *Added Option in Thailand*

Option : With connect graphic display

Option : With timer

Option : With AUX relay for zone

Electrical

■ *Model: FA-500 Series*

■ Standard : Reply CNS.8877.Z2044

■ Primary Power Source: 220 VAC, 50/60 Hz

■ Secondary Power Source : (Battery Backup)

FA-505   5 Zone   : 24 VDC 1.2 Ah

FA-510   10 Zone   : 24 VDC 1.2 Ah

FA-515   15 Zone   : 24 VDC 2.1 Ah

FA-520   20 Zone   : 24 VDC 2.1 Ah

■ Zone Power : 24 VDC. (18 VDC – 30 VDC)

■ Zone EOL : 10K EOL (1/4 – 1/2W Resistor)

■ Bell Power : 24 VDC. (1.0 amps)

■ Panel Color : White & Ivory

■ Dimension (mm.)

FA-505   : 300 X 380 X 95 mm.

FA-510   : 300 X 460 X 95 mm.

FA-515   : 310 X 560 X 110 mm.

FA-520   : 310 X 640 X 110 mm.

CEMEN FIRE ALARM SYSTEM

ISO 9001 : 2015

Model CL-2100
Manufactured :
Chang Long Fire Protection Inc.
MADE IN TAIWAN

FIRE ALARM EQUIPMENT

Operation for FA-500 SERIES
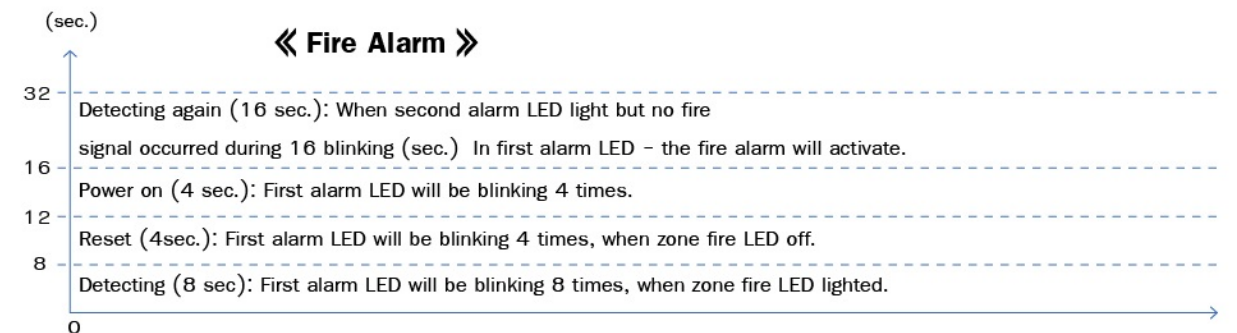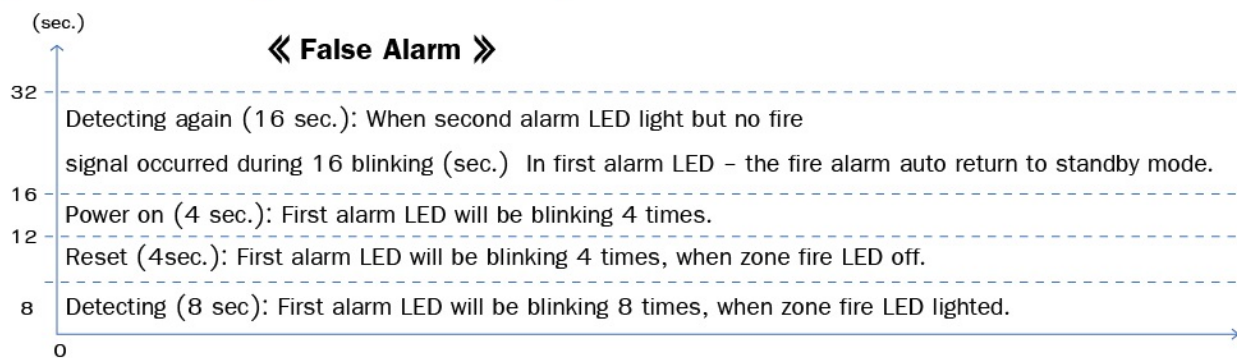
◆ NORMAL CONDITION

The normal condition refers to a control panel with no active events.

- *The green **AC POWER** LED is lit (steady indication)*
- *The green **NORMAL LED** is lit (steady indication)*
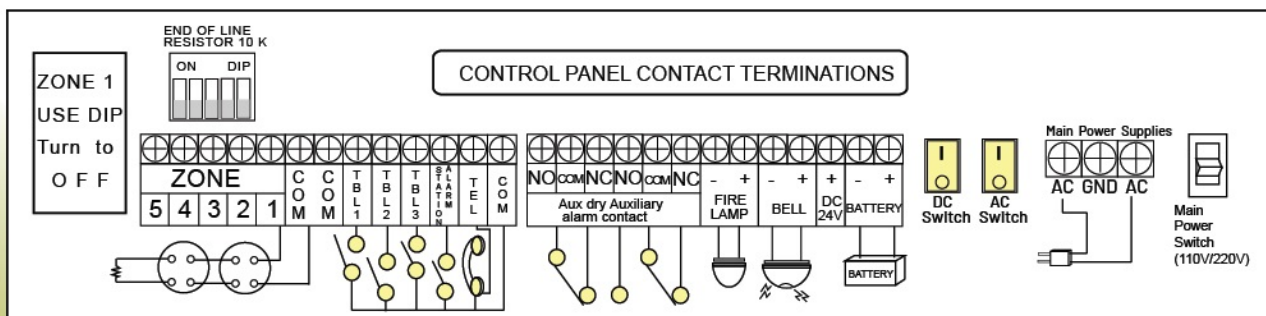- *No other LED indications are given.*

◆ FIRE CONDITION

- *The control panel is in fire condition, i.e it is signalling a fire alarm.*
- *The **FIRE** indicator (red LED) is flashing.*
- *The Zone which has detected the fire is indicated by ZONE FIRE lights.*
- *The internal control panel **FIRE ALARM** BUZZER sounds.*
- *External alarm devices are activated. (Bell : 24VDC, Aux relay ary contacts : NO)*
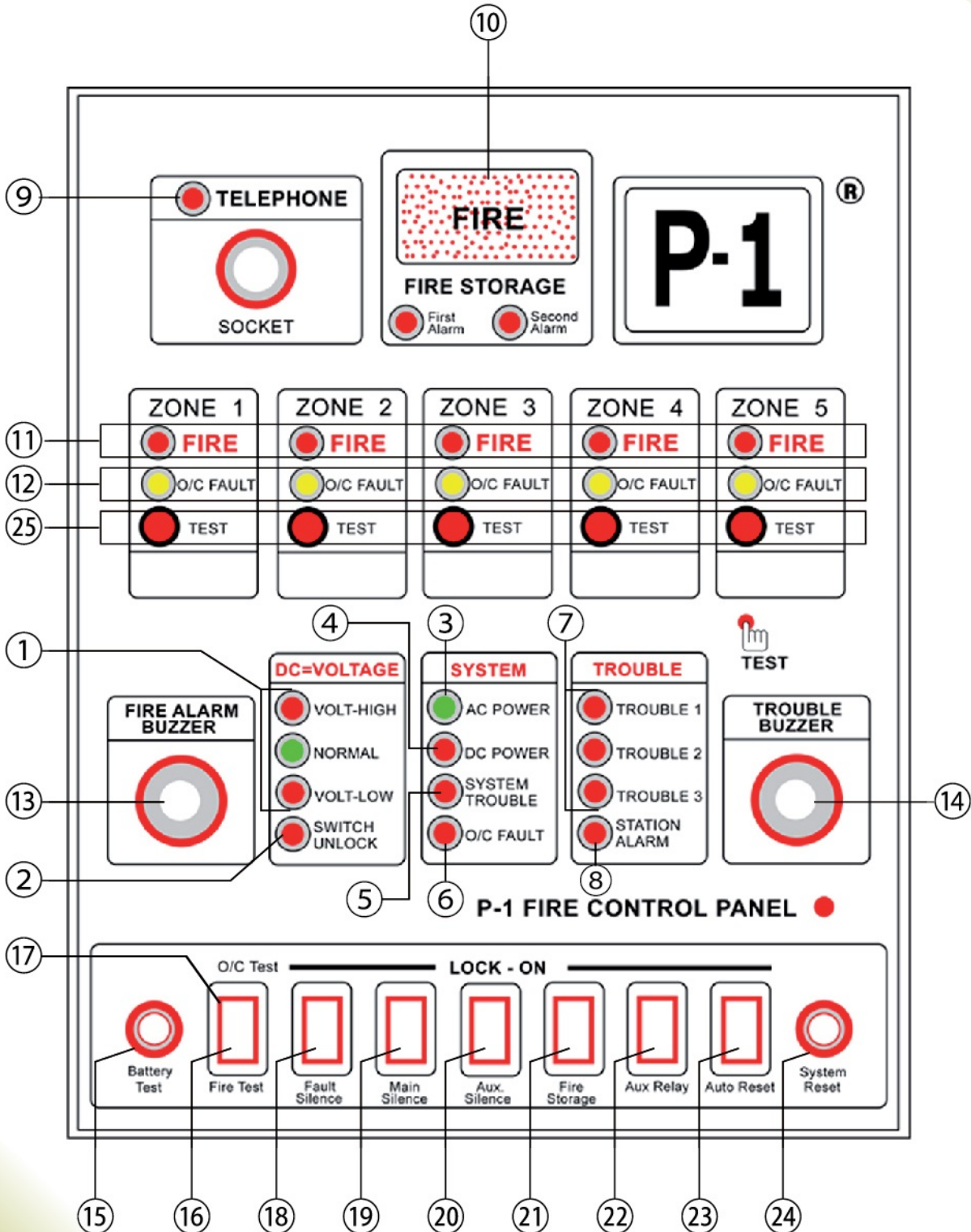
◆ FIRE STORAGE (FOR DOUBLE CHECK)

(sec.)

《 False Alarm 》

32 —

Detecting again (16 sec.): When second alarm LED light but no fire

signal occurred during 16 blinking (sec.) In first alarm LED – the fire alarm auto return to standby mode.

16 —

Power on (4 sec.): First alarm LED will be blinking 4 times.

12 —

Reset (4sec.): First alarm LED will be blinking 4 times, when zone fire LED off.

8 —

Detecting (8 sec): First alarm LED will be blinking 8 times, when zone fire LED lighted.

0

(sec.)

《 Fire Alarm 》

32 —

Detecting again (16 sec.): When second alarm LED light but no fire

signal occurred during 16 blinking (sec.) In first alarm LED – the fire alarm will activate.

16 —

Power on (4 sec.): First alarm LED will be blinking 4 times.

12 —

Reset (4sec.): First alarm LED will be blinking 4 times, when zone fire LED off.

8 —

Detecting (8 sec): First alarm LED will be blinking 8 times, when zone fire LED lighted.

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Wiring Diagram for FA−500 SERIES CONTROL PANEL

END OF LINE RESISTOR 10 K

ON   DIP

CONTROL PANEL CONTACT TERMINATIONS

ZONE 1
USE DIP
Turn to
O F F

ZONE
5 4 3 2 1

COM COM TBL1 TBL2 TBL3 STATION ALARM TEL COM

NO COM NC NO COM NC   Aux dry Auxiliary alarm contact

FIRE LAMP   BELL   DC 24V   BATTERY

DC Switch   AC Switch

Main Power Supplies
AC GND AC

Main Power Switch (110V/220V)

BATTERY

ISO
9001 : 2015

Model CL-2100
Manufactured :
Chang Long Fire Protection Inc.
MADE IN TAIWAN

FA-500 SERIES

System Control And Indicator On Board

⑩

⑨ TELEPHONE

SOCKET

FIRE

FIRE STORAGE

First Alarm   Second Alarm

P-1 ®

ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
⑪ **FIRE**	**FIRE**	**FIRE**	**FIRE**	**FIRE**
⑫ O/C FAULT	O/C FAULT	O/C FAULT	O/C FAULT	O/C FAULT
㉕ TEST	TEST	TEST	TEST	TEST

④ ③ ⑦

TEST

① **DC=VOLTAGE** **SYSTEM** **TROUBLE**

FIRE ALARM BUZZER

VOLT-HIGH   AC POWER   TROUBLE 1   **TROUBLE BUZZER**

NORMAL   DC POWER   TROUBLE 2

⑬ VOLT-LOW   SYSTEM TROUBLE   TROUBLE 3   ⑭

SWITCH UNLOCK   O/C FAULT   STATION ALARM

② ⑤ ⑥ ⑧

P-1 FIRE CONTROL PANEL ●

⑰ O/C Test ———— LOCK - ON ————

Battery Test | Fire Test | Fault Silence | Main Silence | Aux. Silence | Fire Storage | Aux Relay | Auto Reset | System Reset

⑮ ⑯ ⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔

FA-500 SERIES

SYSTEM CONTROL AND INDICATOR ON BOARD

INDICATING LED

1. **DIGITAL VOLTMETER** : Indicating regular power supply (Normal: 20 VDC ~ 30 VDC)
2. **SWITCH UNLOCK** : Red LED is flashing once 1 sec.
3. **AC POWER** : Green LED is Lit: The AC power connected to the control panel.
4. **DC POWER** : The AC power failure and the DC power connected to the control panel.
5. **SYSTEM TROUBLE** : Red LED is Lit. The fuse fault of main board.
6. **O/C FAULT** : Red LED is Lit. Indicating zone open circuit fault.
7. **TROUBLE** : Red LED is Lit. Indicating tank water below level or other trouble.
8. **STATION ALARM** : Red LED is Lit. The manual pull station are activated.
9. **TELEPHONE** : Red LED is Lit. Indicating the phone call.
10. **FIRE** : Red LED is flashing. Fire alarm!
11. **ZONE FIRE** : Red LED is Lit. Indicating the zone has detected the fire.
12. **ZONE O/C FAULT** : Yellow LED is Lit. Indicating the zone open circuit fault.
13. **ALARM BUZZER** : 85dB @ 1m (min.)
14. **TROUBLE BUZZER** : Zone open circuit: once 1 sec. Telephone & trouble alarm: always.

SWITCH OPERATION: UP - SETTING,   DOWN - CLOSE

15. **BATTERY TEST** : Pressing the button will test the battery.
16. **FIRE TEST** : Down the switch to test zone fire circuit (Test mode)
17. **O/C TEST** : Up the switch to test zone open circuit (Test mode)
18. **FAULT SILENCE** : Unlock the switch to silence TROUBLE BUZZER.
19. **MAIN SILENCE** : Unlock the switch to silence FIRE ALARM BUZZER.
20. **AUX SILENCE** : Unlock the switch will cause all sector sounder outputs to switch off.
21. **FIRE STORAGE** : Unlock the switch disable to double check the fire alarm signal.
22. **AUX RELAY** : Unlock the switch to control the relay NC or NO output.
23. **AUTO RESET** : Unlock the switch, auto reset to standby mode.
24. **SYSTEM RESET** : Pressing the button will reset to standby mode.
25. **ZONE TEST** : Pressing the button will test zones fire/open circuit (in test mode)