

BS-1632, BS-1634, BS-1636

Conventional 2, 4 and 6 zone Fire Alarm Panels



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Olympia Electronics - European manufacturer

GENERAL

The family of fire detection panels consist of 3 types (2, 4 and 6 zone) with identical operation and indications. The panels have 2 independent siren outputs, Alarm, Fault Relay and a programmable AUX relay. The required batteries for the panels are two A-920 (12V/2.6Ah). All functions and indications are according to European Norms EN 54-2 and EN 54-4.

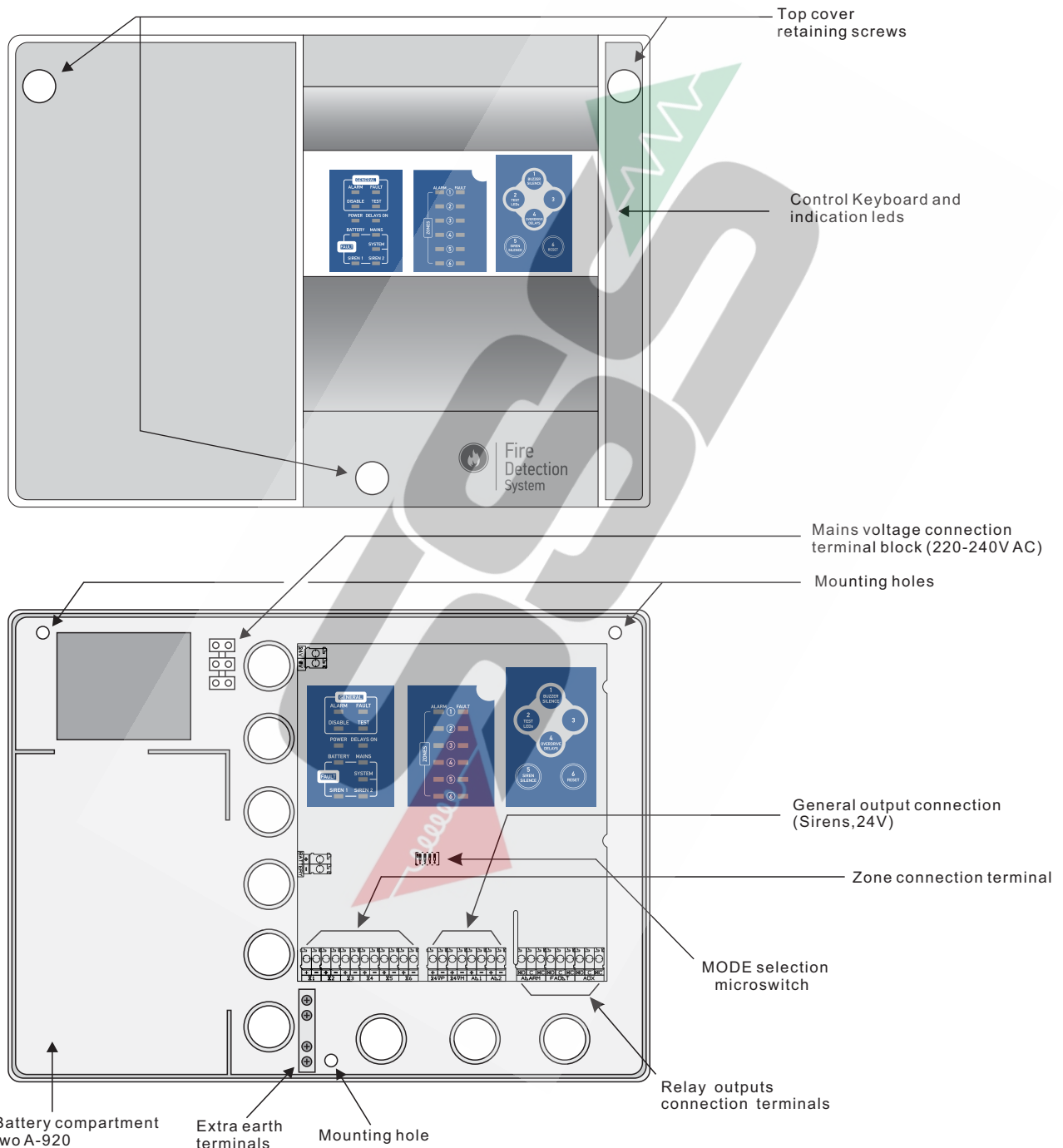


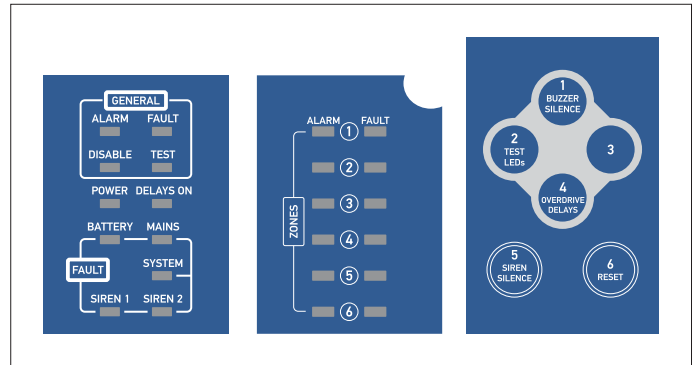
Figure 1. Schematic diagram of the panel

Indication LED description

The schematic shows the control keyboard and the indication plate of a 6 zone BS-1636 panel. Starting from the top left side we can see 4 indicators marked 'General'. The 'Disable' LED lights in every DISABLE condition.

The 'Test' LED lights in every TEST condition. The panel does not have a test condition as specified in paragraph 11 of EN 54-2.

The 'Fault' LED lights in every FAULT condition. Blinks when we have a FAULT condition and the buzzer is silenced. The 'Alarm' LED lights when we have an ALARM condition. Blinks when we have an ALARM condition and the buzzer is silenced.



Below is the indicator "POWER" which is on when the panel is working and blinks when there is mains supply failure.

On the right of the "POWER" indicator is the "Delays ON" indicator which shows if the delays of the output are enabled or disabled.

Below the 'General' indicator group we can find the indication group called 'Fault'.

The 'Battery' LED and 'Mains' LED in combination, show us faults concerning the power supply. These combinations are shown in the panel below.

The 'System' LED lights to indicate a problem with the main processor unit (System fault).

	Lack of AC voltage	Battery Overcharging	Battery Discharged	Battery Absent	Charger Error	Bad Battery
MAINS Fault	Lights	Lights	Lights	Blinks	Blinks	----
BATTERY Fault	----	Lights	Blinks	Lights	Blinks	Lights

The LEDs marked 'Siren1' and 'Siren2' correspond to the siren outputs. If a siren out has a short circuit or open circuit then the corresponding LED will blink. If a siren is disabled the corresponding LED will light.

The next group of indicators is the 'Alarm' indication LEDs.

These indicators light when a corresponding zone issues an ALARM condition. Next to this group we have the 'Fault/Disable' indication for each zone. When the panel monitors an open or short circuit condition in a zone then the corresponding LED will blink. If a zone is disabled the corresponding LED will light.

Control keyboard description/operation

The panel is controlled/ operated using the six numeric keys (1 to 6) found on the front panel. When a key is pressed a short tone is issued.

The panel has three access levels.

Access level 1:

has all the functions that can be done directly from the user without using a code. These operations are:

Buzzer silence / Buzzer reactivation: If an alarm or fault condition is issued then the internal buzzer will sound. Pressing the key "1" will silence the buzzer. (The buzzer sounds periodically once every minute.) Pressing this key again will reactive the buzzer.

Lamp test: Pressing the key "2" a lamp test is conducted by lighting the LEDs. The panel then returns to normal operation. The above tests can be conducted only if the panel is in quiescent state (No fault or alarm conditions).

Override Delays: If an alarm occurs and the delays are active the user can override the delays by pressing the key "4". The output will be immediately activated.

Access level 2:

Includes all the functions that the user can do and an access code is required. The code is "34", it is the same for all panels and can not be changed. The functions that can be implemented using this code are the following:

Evacuate: Gives evacuate signal to the panel.

The user must enter the user code (34) and then the keys '4' and '4'. Then the panel will go to alarm state. The sirens will sound and the internal buzzer also.

Siren Silence: When an alarm is issued and we want to silence the sirens then we must enter the user code (34) and then the keys '5' and '5'. The sirens are silenced but the internal buzzer continues to sound. The panel remains in normal operation. A new alarm from another zone will resound the sirens. To resound the sirens press again the same code.

Panel Reset: When an alarm or fault condition has occurred and we want to reset the panel we must enter the user code (34) and then the keys '5' and '6'. The panel lights all LEDs in sequence and then enters normal operation.

Zone enable/disable: If we want to disable the operation of specific zones then we must enter the user code (34) and then the keys number '5' and '4'. The LED marked 'General disable' start to blink, and if a zone is disabled the corresponding 'Fault' LED lights to indicate this. Using the keys 1, 2, 3, 4, 5 and 6 we can enable or disable the respective zones. The disabled zones light the corresponding LED. The panel exits this mode if no key is pressed for more than 30 seconds. The panel then conducts an automatic RESET and enters normal operation mode. Disabled zones does not give alarm or fault condition. If we have disabled zones then this is indicated with the indicators 'General disable' and the corresponding Disable LED zone and the buzzer sounds once every minute.

Siren enable/disable: If we want to disable the operation of specific sirens we must enter the code (34) and then the keys '6' and '6'. The LED marked 'General Test' start to blink, and if a siren is disabled Siren1 LED lights for siren 1 and Siren2 LED lights for the siren 2. Using the keys 1 and 2 we can enable or disable the respective sirens. The disabled sirens have a LED lighted. The panel exits this mode if no key is pressed for more than 30 seconds. The panel then conducts an automatic RESET and enters normal operation mode. All disabled sirens are supplied with the proper voltage but the panel can not enable them or read their condition. If we have disabled sirens then this is indicated with the indicator 'General disable' and the buzzer sounds once every minute.

Delays ON/OFF: If we want to disable the delays of the outputs. We must enter the code (34) and then the keys '6' and '4'. Then the delays will be disable, the LED marked "Delays ON" will turn off. To enable the delays we must press again the code.

Access level 3:

These functions are implemented during the installation and need the technical code to be accessed. The technical code is "364", it is the same for all panels and can not be changed. These functions can be implemented using the technical code are activation methods used for the relays and can be done only if the panel has not issued an alarm or fault condition. These functions are ancillary and not required by the EN 54-2. These methods of programming are:

AUX RELAY programming: If we want to program the operation behaviour of the AUX RELAY we must enter the technical code (364) and then press the key '5'. The 'General fault' and 'General alarm' LEDs start to blink. The Alarm zone LEDs and the fault LED zone show the way the AUX RELAY . If the Alarm led of the zone is on then we have logic AND for the aux relay activation. If the fault led of the zone is on then we have logic OR for the aux activation.

For example if Alarm Zone 1 and 2 is on and Fault Zone 3 and 4 is on, then the relay will be activated when Z1 and Z2 is in alarm condition or Z3 or Z4 are in alarm condition

To change the state of each zone, press the corresponding number each time.

In order to exit this programming mode and to store the settings in memory do not press any key for more than 30 seconds. This system will conduct an automatic RESET and will enter normal operation mode.

Program Siren delay. If we want to program the delay of the sirens we must enter the technical code (**364**) and then press the key '**4**'. The 'General fault', 'General Disable' and 'General alarm' LEDs start to blink. The Alarm, the Fault/Disable LED of zone 1 and Fault/Disable LED of zone 2 show the programmed delay of the sirens according to the table below. By pressing the key '**1**' you can change the configuration.

	Zero Delay	Delay 1min	Delay 2min	Delay 3min	Delay 4min	Delay 5min
Alarm zone 1	LED ON	LED Blink	LED Off	LED Off	LED Off	LED Off
Fault zone 1	LED Off	LED Off	LED On	LED Blink	LED Off	LED Off
Fault zone 2	LED Off	LED Off	LED Off	LED Off	LED On	LED Blink

RESOUND sirens: It is possible to configure to automatically resound the sirens following an alarm in another zone. You must enter the technical code (**364**) and then press the key '**4**'.

The 'General fault', 'General Disable' and 'General alarm' LEDs start to blink. The Alarm LED of zone 2 led is off the sirens resound following an alarm in another zone else if the led is on the sirens does not resound. By pressing the key '**5**' you can change the configuration.

Programming the delay of general relay (AUX RELAY). If you want to program the delay of the AUX RELAY must enter the technical code (**364**) and then press '**6**'. The LED " General fault ", " General Alarm " and "DELAYS ON" begin to blink.

The indicative Zone " Alarm " and " Fault LED " indicates delay activation of "AUX RELAY".

	Without Delay	30 second Delay	60 second Delay	90 Second Delay
Alarm zone 1	LED ON	LED OFF	LED OFF	LED OFF
Fault zone 1	LED OFF	LED ON	LED OFF	LED OFF
Alarm zone 2	LED OFF	LED OFF	LED ON	LED OFF
Fault zone 2	LED OFF	LED OFF	LED OFF	LED ON

To change the mode press ' 1 ' 2' , ' 3' and '4'. To exit the programming mode and store the settings in memory , press the button <5 > . The system will automatically RESET and will enter normal operation.

Below is a table that summarizes all the code and corresponding functions.


Code	Function
3-4-4-4	Evacuate
3-4-5-4	Enable/Disable Zones
3-4-5-5	Silence/Resound Sirens
3-4-5-6	Reset
3-4-6-4	Delays ON/OFF
3-4-6-6	Enable/Disable Sirens
3-6-4-5	Program AUX relay
3-6-4-4	Resound and Delay sirens
3-6-4-6	Program Predelay of AUX Relay


Technical Specifications

	BS-1632 2 zone fire detection panel	BS-1634 4 zone fire detection panel	BS-1636 6 zone fire detection panel
Mains power supply	220-240V AC / 50-60Hz		
Consumption	50VA		
Battery type	Two 12V Lead acid sealed 2.6Ah		
Charging circuit	Stabilized power supply 27.6V / max. 400mA		
Zone circuits	2 circuits monitored for short and open circuit conditions (maximum current 35mA)	4 circuits monitored for short and open circuit conditions (maximum current 35mA)	6 circuits monitored for short and open circuit conditions (maximum current 35mA)
Alarm circuits	Two 24V circuits that are monitored for open and short circuit conditions (maximum current 300mA each). Each output is protected with a self-resetting electronic fuse.		
Output 24P	24VDC (± 3 VDC) permanent output with maximum current output 0.3 A The output is protected with a self-resetting electronic fuse.		
Output 24M	24VDC (± 3 VDC) reset interrupted output with maximum current output 0.3 A The output is protected with a self-resetting electronic fuse.		
Outputs Relays	Three relays contacts are rated at 30VDC and 5A maximum each. Under no circumstances should voltages or currents outside limits be connected. All relays output must be protected with a fuse of the same rating.		
Total load	The total output current (zones circuits, siren circuit, outputs 24P, 24M) must not exceed 600mA. (ImaxA = ImaxB = 600mA, Imin = 30mA)		
Autonomy	72 hours (Maximum connected detectors 72 and no load at output 24VM and 24VP)		
Battery cut of voltage	21V		
Maximum current batteries discharge	900mA		
Battery maximum internal resistance Rimax	10hm		
IP	IP30		
Cables	Cables for fire rated cables systems such a FIP200, MICC, PYROFIL		
Fuse ratings	The panel has only one serviceable fuse to protect incoming mains supply. This fuse is T630mAL250V must be replaced with a fuse of the same type and rating		
Operation temperature	0 to 50 °C		
Humidity	Up to 95% relative humidity		
Construction material	ABS - polycarbonate		
Dimensions	325 x 240 x 85 mm		
Weight	1345gr (3065gr with battery)	1350gr (3070gr with battery)	1360gr (3080gr with battery)
Produced in accordance to	EN 54-2, EN 54-4		
Guarantee	2 years		

Certification


The panels BS-1632, BS-1634 and BS-1636 are certified from DEDAL.
Also DEDAL controls the production under CPR number: 1922-CPR-1784.
Below are the markings:


 **BS-1632**
CONVENTIONAL 2-ZONE
FIRE ALARM PANEL
INSTALL IN ACCORDANCE WITH
PRODUCT MANUAL:
921163600_08_022 (GREEK)
921163600_09_023 (ENGLISH)

POWER SUPPLY:  22
220-240V AC/50-60Hz

EN 54-2:1997 +A1:2006
EN 54-4:1997 +A1:2002 +A2:2006
1922-CPR-1784
DoP No: 921163200_59_005
Provided option:
Output to fire alarm device(s),
delays to outputs
**DISCONNECT POWER BEFORE
SERVICING**
Production
Date:


72nd km. O.N.R. Thessaloniki-Katerini
P.C. 60300 P.O. Box 06 Eginio Pierias Greece


 **BS-1634**
CONVENTIONAL 4-ZONE
FIRE ALARM PANEL
INSTALL IN ACCORDANCE WITH
PRODUCT MANUAL:
921163600_08_022 (GREEK)
921163600_09_023 (ENGLISH)

POWER SUPPLY:  22
220-240V AC/50-60Hz

EN 54-2:1997 +A1:2006
EN 54-4:1997 +A1:2002 +A2:2006
1922-CPR-1784
DoP No: 921163400_59_005
Provided option:
Output to fire alarm device(s),
delays to outputs
**DISCONNECT POWER BEFORE
SERVICING**
Production
Date:

72nd km. O.N.R. Thessaloniki-Katerini
P.C. 60300 P.O. Box 06 Eginio Pierias Greece

 **BS-1636**
CONVENTIONAL 6-ZONE
FIRE ALARM PANEL
INSTALL IN ACCORDANCE WITH
PRODUCT MANUAL:
921163600_08_022 (GREEK)
921163600_09_023 (ENGLISH)

POWER SUPPLY:  22
220-240V AC/50-60Hz

EN 54-2:1997 +A1:2006
EN 54-4:1997 +A1:2002 +A2:2006
1922-CPR-1784
DoP No: 921163600_59_005
Provided option:
Output to fire alarm device(s),
delays to outputs
**DISCONNECT POWER BEFORE
SERVICING**
Production
Date:

72nd km. O.N.R. Thessaloniki-Katerini
P.C. 60300 P.O. Box 06 Eginio Pierias Greece

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