

ZERIO PLUS

EDA-Z5008, Z5020 & Z5100

USER MANUAL

ZPControlUserMan_r100

Revision 1.00



0359

Electro Detectors Limited

Electro House
Edinburgh Way
Harlow, Essex
CM20 2EG, UK

14

0359 CPR 00226

DOP_EDA_Z5100 (covers all models)

EN54-2:1997+A1:2006

EN54-4:1997+A1:2002+A2:2006

EN54-25:2008

Control and indicating equipment for fire detection and fire alarm systems for buildings

Models: EDA-Z5008, EDA-Z5020, EDA-Z5100

Optional functions with requirements:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.11 Delays to outputs
- 7.12 Dependency on more than one alarm signal - Type C dependency
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 9.5 Disablement of addressable points
- 10.0 Test condition

Revision History

V1.00	19/01/2015	User manual first release.
-------	------------	----------------------------

Introduction

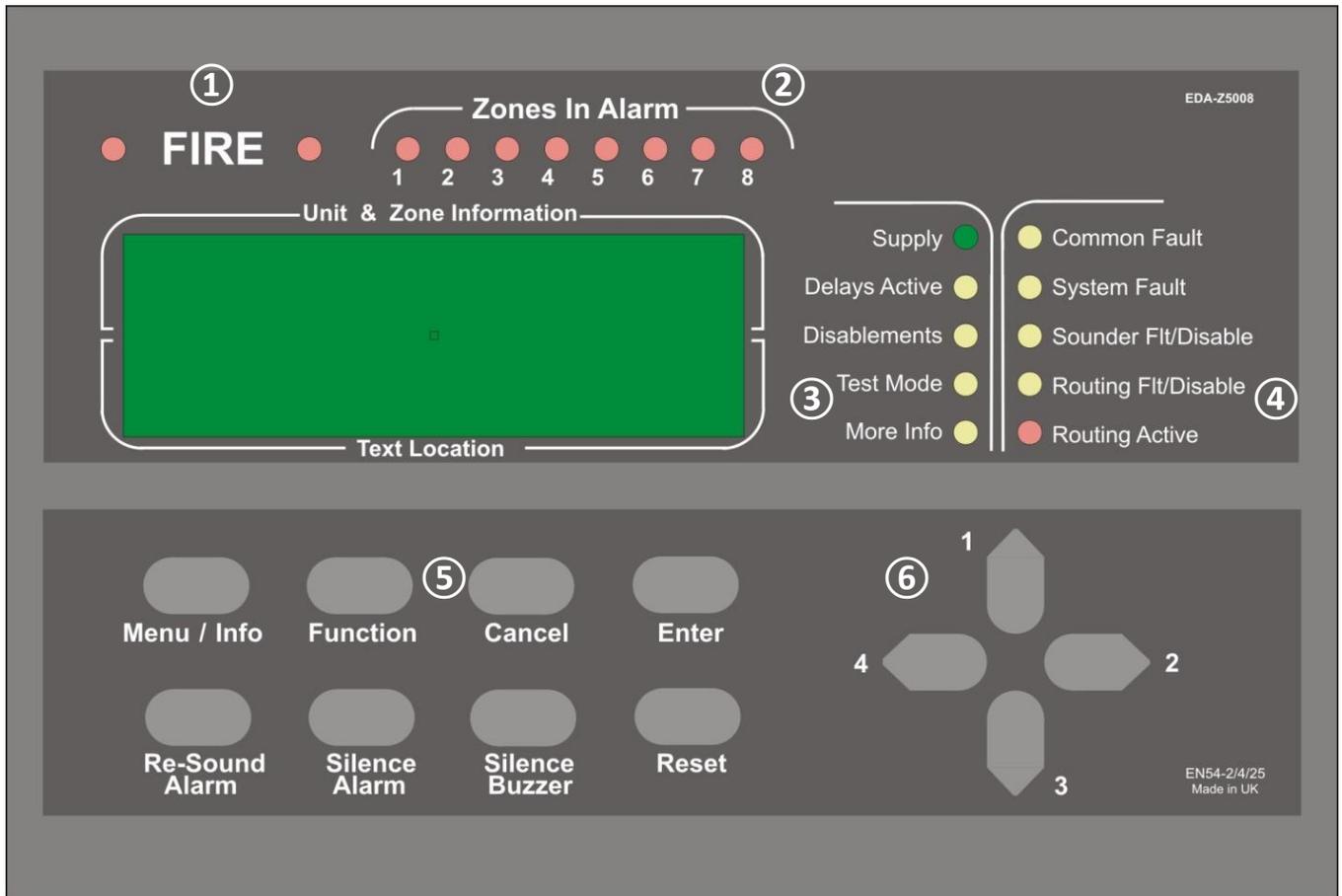
Electro Detectors has been manufacturing radio fire alarm systems since 1987 and with the introduction of a harmonised specification for Europe has complemented its range of products to meet EN54 Part 25. Based on the popular Zerio system, the updated Zerio Plus has been designed to be capable of handling 240 devices in 100 zones. Typical installations would include small offices, private houses, HMO's, guesthouses and small hotels.

This manual contains information to enable a user to operate the Zerio Plus control panel and the range of Zerio Plus devices. This product should be installed, commissioned and maintained by qualified service personnel in accordance with codes of practice, statutory requirements and IEE regulations for electrical equipment in buildings.

Contents

- 1.0 Front Panel Layout**
- 2.0 User Operation**
 - 2.1 System Normal
 - 2.2 Fault Conditions
 - 2.3 Silence Buzzer
 - 2.4 Reset a Fault
 - 2.5 Alarm Conditions
 - 2.6 Silence the Alarm
 - 2.7 Re-sound the Sounders
 - 2.8 Reset the Alarm
 - 2.9 Access Levels
- 3.0 Menu Operation**
 - 3.1 Quick Menu
- 4.0 Setup Menu**
 - 4.1 Time and Date
- 5.0 Disable/Enable Menu**
- 6.0 Test Mode**
 - 6.1 Test Zone
 - 6.2 Clear Zone In Test
 - 6.3 Lamp and Buzzer Test
- 7.0 Faults**
- 8.0 Maintenance**

1.0 - Front Panel Layout



- ① **Fire LEDs** If the panel goes into alarm, these LEDs will flash until the panel is reset.
- ② **Zone Alarm LEDs** In a fire condition, the appropriate zone LED will illuminate. If the fire condition exists across multiple zones, multiple zone LEDs will be illuminated. The zone LEDs will remain lit until the panel is reset. **The EDA-Z5008 8 Zone panel is shown. The EDA-Z5020 panel is equipped with 20 zone LEDs and the EDA-Z5100 is equipped with 100 zone LEDs.*
- ③ **Status LEDs**

Supply	This LED will be illuminated when mains power is present.
Delays Active	Illuminated if delays are enabled.
Disablements	Illuminated for any disablement.
Test Mode	Illuminated if any test modes are operational.
More Info	More information on the system condition is available in the event log.

- ④ **Fault LEDs**
- | | |
|----------------------------|---|
| Common Fault | Device or panel has a fault. See main display for details. This LED will remain lit until the panel has been reset. |
| System Fault | Fault that affects system performance. See main display for details. |
| Sounder Flt/Disable | If the LED is flashing, there is a fault with one or more sounders. If the LED is solid, the one or more sounders have been disabled. |
| Routing Flt/Disable | If the LED is flashing, there is a fault with the fire routing relay. If the LED is solid, the fire routing relay has been disabled. |
| Routing Active | Illuminated when the fire routing relay has been activated. |
- ⑤ **Keys**
- | | |
|-----------------------|--|
| Menu/Info | Press to initiate the menu system. If held down for longer than 2 seconds, the LEDs will follow a test sequence (lamp test). |
| Function | This button is disabled by default, though it can be programmed to do a number of functions. |
| Cancel | Used to return to the main screen from a menu or to return to the menu from a programming screen. |
| Enter | This is used to accept information programmed into the panel. |
| Re-sound Alarm | Following an alarm condition that has been silenced but not reset, this button will re-sound the alarm. |
| Silence Alarm | If the panel is in a fire condition this will silence the sounders. |
| Silence Buzzer | Silences the panel buzzer for all currently displayed faults or alarms. |
| Reset | Resets the panel from an alarm or fault condition. Note that the system must be silenced before it can be reset from a fire condition. |

- ⑥ **Navigation Keys**
- The navigation keys are numbered 1 to 4. This is to allow the user to enter a 4 digit access code when prompted.

Use the keys to navigate through the menu structure and programming/status screens. In a multiple fault or alarm condition, the up and down arrow keys allow the user to scroll through all the current events. The display will also scroll automatically every 4 seconds.

In the panel menus, use ↑ and ↓ to scroll through the available menu options. Press → to select the currently highlighted menu. Press ← to go back to the previous menu.

2.0 - User Operation

2.1 - System Normal

In normal operation the screen will show either the date and time, or the supplier/service contact details. The unit can also be configured to alternate between the two. If configured this way, the display will change every 4 seconds. Also a single green 'Supply' LED will be illuminated.

```
Tuesday
01-01-2013

12:04:36
```

2.2 - Fault Conditions

If a fault occurs, the internal buzzer will sound and a message will be displayed. The first line details the current fault number, the zone and the type of fault. The second line details the device type and the device number. The third and fourth lines display the device location text (if programmed). The description has a maximum length of 40 characters across 2 lines. Appropriate action should be taken to remedy the fault as this may affect the operation of the fire alarm system. If in doubt, the system maintenance company should be contacted. If more than one fault exists on the system they will scroll round every 5 seconds. Pressing the ↑ or ↓ cursor key will display the next or previous fault.

```
001 Zn:001 VFY FAULT
SMOKE DET 001
Entrance Hall
```

2.3 - Silence Buzzer

If the panel buzzer is sounding following a fault or alarm, it can be silenced with the **Silence Buzzer** key. Once the **Silence Buzzer** button has been pressed the panel assumes that the fault has been acknowledged and does not re-sound the buzzer, unless a new fault occurs. The LED on the device will continue to flash until the fault is reset – see below.

2.4 - Reset a Fault

A fault will be displayed on the panel until the system is reset, even if the fault condition has been rectified. Assuming the fault has been rectified; pressing **Reset** on the panel and entering an access code using the navigation keys will reset the panel and the devices on which the fault has occurred. The system normal screen will then be displayed. If the fault is still present or re-occurs, it will be re-displayed. Where there are multiple faults, all will be reset at the same time. It is not necessary to silence a fault before resetting it. The particular device or devices in fault will also flash a green LED and beep.

```
Enter Access Code

-----
```

2.5 - Alarm Conditions

In a fire condition, a screen similar to this will be displayed. The fire LEDs will flash and the zones in alarm LED(s) will be illuminated. Assuming the system is programmed to do so, the system sounders will be activated and the routing active LED will illuminate. The first line of the display shows the event number and the zone number. The second line details the device type and its number. If the device location has been programmed into the panel, it will be displayed on the third and fourth lines. Scroll through multiple alarms using the ↑ and ↓ keys.

```
001 Zone 001
SMOKE DET 001
Conference Room
```

2.6 - Silence the Alarm

When it is certain that it is safe to return to the building the **Silence Alarm** button should be pressed. The user will then be prompted to enter a valid user access code using the navigation keys. Up to 30 seconds should then be allowed for all sounders to silence. If a device is still in an alarm condition the sounders will not sound again unless another device goes into alarm. If an alarm is left unsilenced, the sounders will turn off automatically after 30 minutes.

2.7 - Re-sound the Sounders

There may be times when the sounders have been mistakenly silenced – for example if the alarm was genuine but someone pressed silence. The **Re-Sound Alarm** button followed by a valid access code will activate the sounders again.

2.8 - Reset the Alarm

Assuming the cause of the alarm has been investigated; pressing **Reset** after silencing the alarm will return the system to its normal operation screen and reset the devices that prompted the alarm. The user will be prompted to enter a valid access code using the navigation keys.

If a device has remained in alarm (i.e. the glass has not been replaced in a callpoint or a smoke detector detects smoke is still inside the unit) after silencing the alarm and pressing **Reset**, the panel will redisplay the alarm and the sounders will sound again.

2.9 - Access Levels

The panel is protected from misuse by means of four access levels. The access levels are as follows:

Level 1	Untrained user
Level 2A	Basic user
Level 2B	Advanced user
Level 3A	Service and Maintenance Engineer
Level 3B	Commissioning Engineer
Level 4	Manufacturer – Access tools required



A Level 1 untrained user can view the current system state including any faults, alarms, disablements and tests. Level 1 users cannot access the Main Menu. See [3.1 – Quick Menu](#).

A Level 2A basic user can view the current operational condition of the system, access the disable/enable menu and may silence and reset alarms.

A Level 2B advanced user in addition has access to test mode and the event log.

A Level 3A engineer in addition has access to system and device information and the verify table.

A Level 3B commissioning engineer has access to all system options, including programming and configuration of devices and hardware.

All menus, settings and options described in this manual show the required access level in the title. For example: [6.2 – Clear Zone in Test – advanced, service and commissioning users](#)

Each access level (excluding level 1) requires a 4 digit code to access the menus.

3.0 - Menu Operation

To enter the menu system, press **Menu**. This will display an overview of any alarms, faults, disablements or tests that are currently active, along with an option to access the Main Menu. The options available on the main menu and sub-menus will be dependent on the access code entered and its corresponding access level. To scroll through the menu the **↑** and **↓** keys should be pressed. In order to select a menu option the **→** key should be pressed. To return to the previous menu screen from a sub-menu the **←** key should be pressed. Pressing **Cancel** will return to the system screen where any faults or alarms will be displayed if present.

For every menu option listed in this manual, its place in the menu structure will be shown in grey text underneath the heading. For example, the event log can be found by selecting the 'Main Menu', followed by 'View Events' and selecting 'View Event Log'.

1.Main Menu>>4.View Events>>2.View Event Log

If a non-menu screen is selected the **Cancel** button should be pressed to return to the menu without making any changes. Subsequently, then pressing **Cancel** for a second time will return to the system screen. If any changes are made to settings, these are generally saved using the **Enter** key as detailed on the display. If an alarm occurs while in menu mode, the menu will be automatically cancelled, and the alarm message displayed. If a fault occurs while in the menu mode, the fault LED will light but the display will remain in the menu mode until cancelled in the usual way.

3.1 - Quick Menu – all access levels

Pressing **Menu** once will display the Quick Menu. Navigate using the cursor keys. Any active alarms, faults, disablements or tests will be displayed. No access code is needed to view the events listed. You will only be prompted to enter an access code if you select '1- Main Menu'.

When a category (e.g. Faults) is selected, the first screen will display information such as the device number, zone, type of fault and any text location.

Pressing the **→** key will display the time and date that the event happened.

```
1>Main Menu
2 Alarms (000)
3 Faults (002)
4 Disablements (000)
```

```
001 Zn:001 SHORT CCT
CONTROL IP1
```

```
Time:12:00:08
Date:25/06/13
```

4.0 - Setup Menu

4.1 - Changing the system Time and Date – all access levels

1.Main Menu>>1.Setup>>1.Time & Date

To change the time and date settings use the ← and → keys to navigate to the value, and the ↑ or ↓ keys to select the desired value. Press **Enter** to accept or **Cancel** to exit. The Zerio Plus panel automatically adjusts the clock for daylight savings. Should complete power be lost the panel will revert the time back to the default of 01/01/2013 12:00:00

```
Time: 12:39:00
Date: 01-01-2013
```

ENTER to save

5.0 - Disable/Enable

Disable a Zone – all access levels

1.Main Menu>>2.Disable/Enable>>1.Disable>>1.Zone

If a zone is disabled the system will not display any fire or fault events for devices located in that zone. This includes any call point activations. Select the zone number to be disabled and press the → key. Select the timeout period followed by the → key. All access levels can disable a zone for a period of 1 to 96 hours. A commissioning user can disable a zone indefinitely by selecting a time of '00' hours. Press **Enter** to save the change. 'Zone XXX disabled' will be displayed on screen and the LED marked 'Disabling' will now be illuminated on the panel. After the timeout period has elapsed, the isolated zone(s) will automatically be re-enabled.

```
Select Zone 001↓
```

Use ← → keys

```
Press ENTER to
Disable Zone 001
```

Disable a Device – all access levels

1.Main Menu>>2.Disable/Enable>>1.Disable>>2.Device

If a device is disabled the system will not display any fire or fault events for that device. Using the ↑ or ↓ keys select the device number to be disabled and press the → key. Select the timeout period followed by the → key. All access levels can disable a zone for a period of 1 to 96 hours. A commissioning user can disable a zone indefinitely by selecting a time of '00' hours. Press **Enter** to save the change. 'Device XXX disabled' will be displayed on screen and the LED marked 'Disabling' will now be illuminated on the panel. After the timeout period has elapsed, the isolated device(s) will automatically be re-enabled. Press **Cancel** to exit or **Enter** to disable more devices. If all devices in a zone are disabled, the zone is also disabled. If a sounder detector is disabled, only the detector component ceases to function. The device will still sound in an alarm. If a square sounder is disabled, only the reporting of faults from the device is disabled – the sounder will still sound in an alarm.

```
Select Device 001↓
SMOKE DET
```

Use ← → keys

```
Press ENTER to
Disable Device 001
```

Disable Panel Inputs – all access levels***1.Main Menu>>2.Disable/Enable>>1.Disable>>3.Panel Input***

The two monitored inputs can each be disabled for a period of time specified by the user, dependent on their access level. All access levels can disable an input for a period of 1 to 96 hours. A commissioning user can disable an input indefinitely by selecting a time of '00' hours. Press **Enter** to save the change 'Input XXX disabled' will be displayed on screen and the LED marked 'Disabling' will now be illuminated on the panel. The system will ignore any fire or fault event from that input within that time. After the timeout period has elapsed any disabled inputs will automatically be enabled again.

Disable Sounders – all access levels***1.Main Menu>>2.Disable/Enable>>1.Disable>>4.Sounders***

The sounders can be disabled for a period of time specified by the user, dependent on their access level. All access levels can disable a sounder for a period of 1 to 96 hours. A commissioning user can disable a sounder indefinitely by selecting a time of '00' hours. The sounders will ignore any fire event from the panel within that time. Both the 'Disabling' LED and the 'Sounder Ftl/Disable' LED will be illuminated. After the timeout period has elapsed any disabled sounders will automatically be enabled again. When sounders are disabled, any hard wired sounder circuits will not display short circuit and open circuit faults.

Disable Fire Routing – all access levels***1.Main Menu>>2.Disable/Enable>>1.Disable>>5.Fire Routing***

The fire routing relay can be disabled for a period of time specified by the user, dependent on their access level. All access levels can disable the relay for a period of 1 to 96 hours. A commissioning user can disable the relay indefinitely by selecting a time of '00' hours. The relay will ignore any fire event from the system within that time. The 'Disabling' LED and the 'Routing Ftl/Disable' LED will be illuminated. After the timeout period has elapsed, the relay (if still disabled) will automatically be enabled again. When Fire Routing is disabled, open circuit and short circuit faults will not be reported.

Disable Fault Relay – all access levels***1.Main Menu>>2.Disable/Enable>>1.Disable>>6.Fault Relay***

The fault relay can be disabled for a period of time specified by the user, dependent on their access level. All access levels can disable the relay for a period of 1 to 96 hours. A commissioning user can disable the relay indefinitely by selecting a time of '00' hours. The relay will ignore any fault event from the system within that time. After the timeout period has elapsed, the relay (if still disabled) will automatically be enabled again. To comply with EN54, the fault relay should not be disabled.

Enable a Zone – all access levels***1.Main Menu>>2.Disable/Enable>>2.Enable>>1.Zone***

To enable a previously disabled zone, select it using the ↑ or ↓ keys and press **Enter**. To enable more zones press **Enter**, or **Cancel** to exit. If all zones have been enabled 'No Zones to enable' will be displayed. If a disabled zone is enabled; and no other isolated devices/zones remain, then the 'Disablements' LED will extinguish.

Enable a Device – all access levels***1.Main Menu>>2.Disable/Enable>>2.Enable>>2.Device***

This menu allows the user to enable a previously disabled device. Using the ↑ or ↓ keys select the device number to be enabled and press Enter. To enable more devices, press Enter, or Cancel to exit. If all devices have been enabled 'No Devices to enable' will be displayed. If a previously disabled device is enabled; and no other isolated devices/zones remain, then the 'Disablements' LED will extinguish.



Select Device 001↓
SMOKE DET
Use ← → keys



Press ENTER to
Disable Device 001

Enable Panel Input – all access levels***1.Main Menu>>2.Disable/Enable>>2.Enable>>3.Panel Input***

Select this option to enable an input that has previously been disabled. Choose the input from the list and press Enter to confirm.

Enable Sounders – all access levels***1.Main Menu>>2.Disable/Enable>>2.Enable>>4.Sounders***

Select this option to enable sounders if they have been previously disabled.

Enable Fire Routing – all access levels***1.Main Menu>>2.Disable/Enable>>2.Enable>>5.Fire Routing***

Select this option to enable the fire routing relay, if it has been previously disabled.

Enable Fault Relay – all access levels***1.Main Menu>>2.Disable/Enable>>2.Enable>>6.Fault Relay***

Select this option to enable the fault relay if it has been previously disabled. To comply with EN54, the fault relay should not be disabled.

6.0 - Test Mode

Test mode allows a system to be tested with minimal disruption to the occupants of a building. When a zone is placed into test mode the engineer can choose to disable sounders, actuators or any output devices. Should anything happen outside of these selected zones the system will operate as normal and the sounders will sound.

Once the various Test Mode parameters have been chosen, the Test Mode LED will illuminate on the main panel. Once selected, the option is also given to save the parameters so that they can be used for subsequent test mode operations. When a zone has been put into the Test condition, subsequent alarms from devices in that zone do not appear on the Main Screen as an alarm, but appear as a “FIRE TEST” event in the event log.

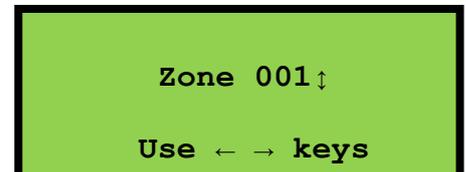
6.1 - Test Zone – advanced, service and commissioning users

1.Main Menu>>3.Test Mode>>1.Test Zone

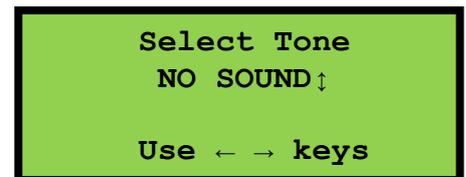
Scroll to the appropriate zone number using the ↑ or ↓ keys, and press the → key to select that zone. Follow the on screen prompts to set the test parameters.

Sounders: If sounders within the zone are to be disabled, select ‘NO SOUND’. Alternatively the sounders can be set to ‘6 SEC SOUND’, where any activated sounders will automatically silence after 6 seconds. This allows the engineer to perform a one-man walk test, without the need to return to panel to silence the alarm.

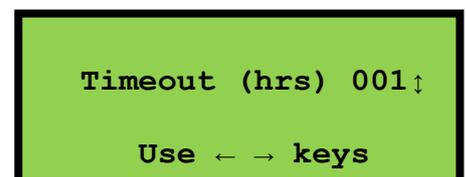
Timeout: This is the amount of time before the system will automatically exit test mode operation. A timeout period of ‘0’ means that the zone will remain in test indefinitely, until the test is disabled by the user. In order to operate this panel and comply with EN54 part 2, this setting should not be set to anything other than ‘0’. It can be set in 1 hour intervals and is selected using the cursor keys.



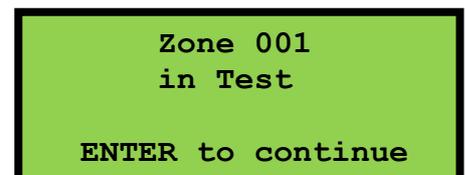
Zone 001↓
Use ← → keys



Select Tone
NO SOUND↓
Use ← → keys



Timeout (hrs) 001↓
Use ← → keys



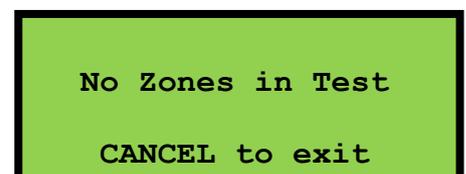
Zone 001
in Test
ENTER to continue

Once completed, press **Enter** to place the zone into test mode with the chosen settings. ‘Zone XXX in Test’ will be displayed on screen and the ‘Test Mode’ LED will illuminate. Multiple zones can be tested at the same time, by selecting ‘Enter more Zones’. The zone tests will be visible in the ‘5-Tests’ section of the quick menu.

6.2 - Clear Zone in Test – advanced, service and commissioning users

1.Main Menu>>3.Test Mode>>2.Clear Zone in Test

This option allows the user to cancel test mode for a zone currently in test. Select the zone and press **Enter**. If no zones are in test the display should show the screen opposite and the ‘Test Mode’ LED will extinguish. Press **Cancel** to return to the menu.



No Zones in Test
CANCEL to exit

6.3 - Lamp/Buzzer Test – advanced, service and commissioning users

1.Main Menu>>3.Test Mode>>3.Lamp/Buzzer Test

This option will illuminate all the panels LEDs in sequence, to check they are working properly. The panel buzzer will also sound. A quick lamp test can be performed from any screen by holding down the **Menu** button for 2 seconds.

7.0 - Faults

The panel continuously monitors hardware, battery life and connections across the system. If a fault is found, it will be displayed on the panel screen, the buzzer will sound and the common fault LED will be illuminated. The first line of the display shows the event number, followed by the zone number and the type of fault. The second line details the type of device and the device number. The third line displays any location text (if programmed).



```
002 Zn:001 REMOVAL  
SMOKE DET 001  
Kitchen
```

If the panel displays any faults, contact your alarm maintenance or installation company for advice.

8.0 – Maintenance

The Zerio Plus system should be maintained in accordance with the regulations and codes appropriate to the country of installation. Follow the test schedule recommended by your installer or maintenance company. This schedule is based on BS5839 codes of practice.

Daily Actions

The user should check that the panel indicates normal operation. If any faults exist, they should be recorded and the responsible person or maintenance company should be notified.

Weekly Actions

The user should put at least one callpoint or detector in to alarm, checking that the correct device/zone is indicated on the panel and that the programmed sounders activate. A different device should be tested this way each week. A lamps test should be carried out and any inactive LEDs reported (refer to section 8.3).

Quarterly Actions

The maintenance engineer should test at least 25% of detectors and 100% of callpoints. The devices tested should be varied so that each device will have been tested at some point in any given 12 month period. The panel battery connections and any relay or input connections should be checked. A visual inspection of the panel should be carried out. Check that there are no outstanding issues in the logbook to be addressed. A lamps test should be carried out and any inactive LEDs reported.

Annual Actions

The maintenance engineer should carry out a complete walk test. The panel battery should be tested (see information below) and replaced if necessary. A dump of the verify table and panel table should be taken and analysed for any change to previous records. A visual inspection of the panel should be carried out. A lamps test should be performed and any inactive LEDs reported.

Zerio Plus Hardware

Product	Description	Battery Type
EDA-A6000	Radio Sounder	3 x EDA-Q690
EDA-A6030	Radio Sounder with LED Beacon	3 x EDA-Q690
EDA-A6060	Radio LED Beacon	3 x EDA-Q690
EDA-C5000	Radio Callpoint/Break Glass Unit	1 x EDA-Q690
EDA-D5000	Radio Heat Detector	1 x EDA-Q690
EDA-D6000	Radio Heat Detector with Combined Sounder	2 x EDA-Q690
EDA-D6030	Radio Heat Sounder Detector with LED Beacon	2 x EDA-Q690
EDA-R5000	Radio Optical Smoke Detector	1 x EDA-Q690
EDA-R6000	Radio Optical Smoke Detector with Combined Sounder	2 x EDA-Q690
EDA-R6030	Radio Optical Smoke Sounder Detector with LED Beacon	2 x EDA-Q690
EDA-T5000	Radio Transmitter Unit	1 x EDA-Q690
EDA-T5100	Radio Silence Alarm Button	1 x EDA-Q690
EDA-T6080	Radio Input/Output Unit DC	1 x EDA-Q690
EDA-Y5000	Dipole Weatherproof Antenna	
EDA-Z5008	8 Zone Radio Control Panel	
EDA-Z5020	20 Zone Radio Control Panel	
EDA-Z5100	100 Zone Radio Control Panel	
EDA-Z6000	Radio Booster Panel with I/O	
EDA-Z6001	Radio Booster Panel	
EDA-Z6010	Wired Intelligent Antenna	
EDA-Z5008FS	8 Zone Flush Mounted Wired Remote Display (Stainless Steel)	
EDA-Z5008SS	8 Zone Surface Mounted Wired Remote Display (Stainless Steel)	
EDA-Z5008SZ	8 Zone Standard Enclosure Wired Remote Display	
EDA-Z5000	Survey Kit	

Electro-Detectors Limited
Electro House,
Edinburgh Way,
Harlow,
Essex,
CM20 2EG

Email: eda@electrodetectors.co.uk
Web: www.electrodetectors.co.uk