



## Zerio Plus

### EDA-A6060 Radio LED Beacon Installation Instructions



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**EDA-A6060**

Radio beacon for use in fire detection and fire alarm systems for buildings.  
Type A: For Indoor Use  
Category O

The EDA-A6060 Radio LED Beacon is used as part of the Zerio Plus Radio Fire Alarm System. It cannot be used with other ranges of Electro-Detectors products.

There is no EN54 standard that covers battery operated beacons. Therefore the unit has been type approved to EN54-25 only.

#### **To fix the base to the wall**

The beacon should be fitted in an appropriate position as detailed in BS5839 Part 1. The base plate should be separated from the unit by removing the M3 screw and pulling apart. The base should be screwed to a flat surface using 2 x No 6 screws of appropriate length for the material that the unit is being mounted on. It is recommended that the base should be used as a template for the screw holes. If the surface is not flat, the unit may buckle and cause tamper conditions, when screwed tightly to the surface. The unit should be fitted away from any metal objects or electrical items to avoid radio interference and a radio survey for the position should have been carried out prior to installation.

#### **Adding the device to the system**

Before the unit will operate on a system, it must be programmed via the control panel. To program the unit the panel must be set in the appropriate mode to add a device to the system. If a device is being added or replaced on the system then the appropriate menu option should be selected on the control panel. Please refer to the panel manual for further information. Before adding/replacing the device on the system you will need to know what unit number/address the unit is to be programmed to. The area and text location information should also be to hand but this can be added/changed later. Some of this information is left at default.

#### **Zone Number**

The zone number is a logical way of grouping devices and is used as a way of indicating where the alarm is in a building. Careful attention to BS5839 should be exercised when allocating devices to zones and would usually be defined when the system is designed. The number of zones available depends on the type of control panel that is being installed. There are 8, 20 and 100 zone models available.



## Area 1 and Area 2

In order to allow for sector sounding (flashing for the beacon), a beacon unit can be programmed in to a logical area or group, eg 1<sup>st</sup> floor. Usually the systems are set up as all out evacuate systems which ignores this setting and so it does not matter what it is set at. They default to 101 and 101 and it is recommended that they be left as this; unless special cause and effects are being used. The panel can be programmed so that different areas / groups of sounders and/or beacons can be operated. The beacons can be put into two separate groups. If a panel instructs the system to sound (flash) a particular group, then only these beacons programmed to that group will flash. If the areas are left as area 0 then whatever the panel is programmed to then beacons programmed into area 0 will always flash.

## Output Timeout

This controls how long the unit will flash before automatically stopping. Once automatically stopped the panel will remain indicating the alarm but the unit will no longer be flashing. Should another alarm condition occur then the unit will resume flashing. This can be set in multiples of 30 minutes from 0 to 900 minutes. Setting the value at 0 will allow the unit to flash continuously. The default timeout setting is 30 minutes.

## To put the beacon into log mode, follow the procedure below:-

1. The panel will need to be put into 'add device', 'replace device' or new set-up mode
2. Remove the base by removing the M3 screw and pulling apart.
3. Ensure the power jumper is removed.
4. Press and hold the log on button.
5. With this button pressed down, fit the power link.
6. If the mode is successfully selected the LED on the front of the unit will glow green.
7. The button can now be released.
8. The panel will indicate that it has found a device of type beacon.
9. Confirm this on the panel and select the correct zone number.
10. The panel will now ask whether to use default values or custom settings. Select which option you require. Default values will meet the relevant parts of EN54 (**Note:** There is no EN54 standard that covers battery operated beacons. Therefore the unit has been type approved to EN54-25 only). Follow the instructions on the screen selecting the appropriate values. The selections can be made by using the cursor keys. The available settings in the advanced menu, which are described above, are as follows.

Zone Number:                      Area 1:                      Area 2:                      Output Timeout:

## Fitting the unit to the wall.

If not already fitted the power link should be fitted on the ON position. When applied the unit will beep and the LED will flash initially green. It will then flash red once a second indicating the unit removal condition. When fitting the unit to its base, the unit should be secured using the M3 screw. Once mounted correctly hold a magnetic test key against the left side of the unit for about a second until it beeps. The LED should stop flashing if the unit is mounted correctly.

If a device on the system is in alarm, the unit will indicate the alarm condition by illuminating the LED. The beacon is instructed to activate by the control panel and so if programmed accordingly the beacon would activate a few seconds after the alarm is displayed on the control panel. If the control panel had been set in its test mode condition, the LED on the beacon will still operate but the beacon would not flash.

## To change the batteries in the beacon:- replacement part: 3 x EDA-Q690

The batteries should last approximately five years in the beacon. Always use batteries supplied by Electro Detectors otherwise this will invalidate the certification. Many similar battery technologies are available but only the ones that meet certain properties can be used with these units. The battery pack is fitted with 2xAA Lithium Thynol Chloride cells. Min voltage 3.0V, Max 3.7V. When the battery is approaching its end of life the unit will transmit a low battery condition, which will be indicated on the control panel. The system will still function for at least a further 60 days in this



condition before the unit fails to operate. Once the batteries are too flat to operate, the unit will either indicate a “verify fail” fault, because the panel has lost communication with the device, or a battery fault will be displayed. Should either of these be witnessed, the batteries should be changed immediately. If the unit detects a fault with the battery a ‘battery fault’ will be indicated on the panel. Therefore:-

1. Remove the beacon from its base by removing the M3 screw and separating the unit.
2. Remove the power link.
3. Remove the old battery packs.
4. Fit the new battery packs making sure the battery’s pins are lined up and pressed down.
5. Press and hold the log on button.
6. With this button pressed down, fit the power link.
7. Let the unit go into its log-on mode, (it will beep) and keep the button pressed down.
8. After another 5 seconds a second BEEP will sound, at this point release the button. This will re-set the battery counter after a further 15 minutes. If you realise that you didn’t want to reset the counter, then power the unit down by removing the power pin. Leave for 5 seconds and re-apply the power. The counter will not reset.
9. Refit the device onto its base.

### **Faults displayed on the control panel from beacons:-**

**Low Battery:** The batteries are approaching their end of life. The unit will continue to operate for a further 60 days within which time the batteries should be changed.

**Verify Fail:** The panel has lost communication with the device, this could be caused by the batteries being flat, the unit failing to operate, something obstructing the radio signal path or the device not being installed correctly with an adequate signal strength.

**Battery Fault:** The unit has detected a problem with the battery.

**Unit Removal:** If the unit is removed from its base, the panel will display a unit removal/tamper fault.

**Tx/Rx Fault:** A failure with the transmit / receive module of the device. It is suggested that the fault should be reset and if the same fault occurs within 60 minutes the unit be replaced.

**Int Fault:** The unit has detected an internal problem with the way it is operating. There are several faults that can cause this but the usual way of solving the problem is to replace the unit or return it for repair. It is suggested that the fault should be reset and if the same fault occurs within 60 minutes the unit be replaced. The faults can relate to the operation of the sensing head, if fitted, the micro-processor controlling the device, its internal memory and a host more.

### **LED Beacon:**

Volumetric Light Output Shape: to be advised

Max Fitting Height: to be advised