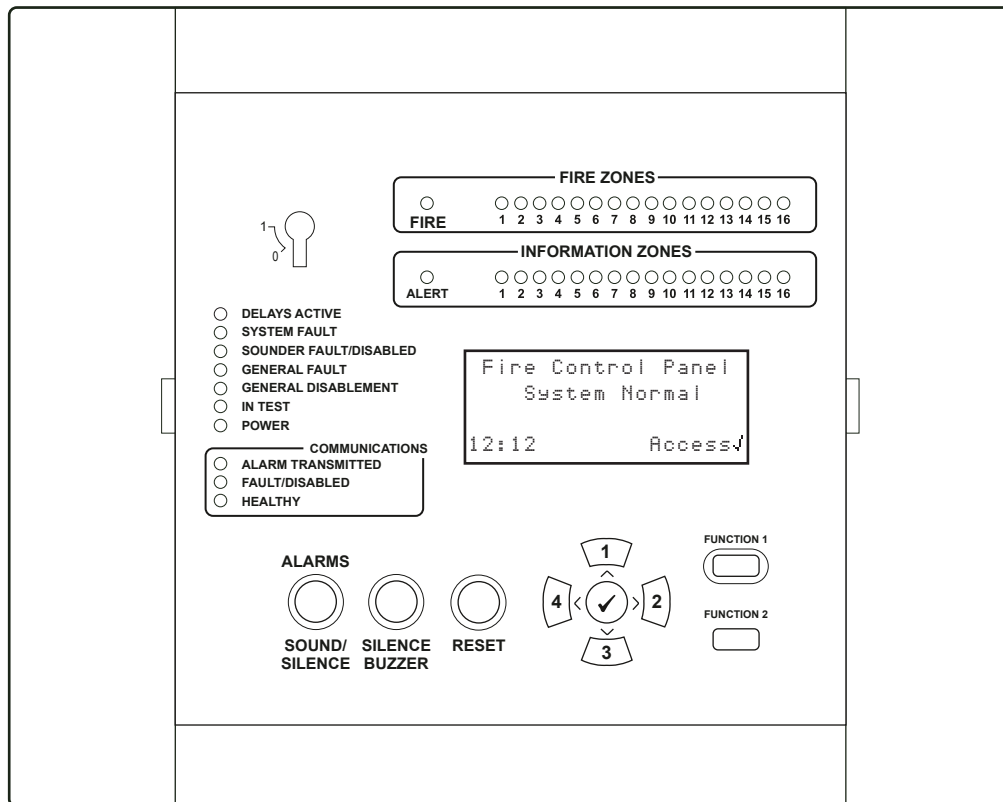


SmartCell



Maintenance Guide

Contents

Overview	3
Pre-testing Guidelines	4
Daily Maintenance	4
Weekly Maintenance	5
Six Monthly Maintenance	6
Annually Maintenance	7
Four-Five Yearly Maintenance	8
Battery Information	9

Overview

It is important that fire alarm systems are regularly checked to ensure their continued correct operation. The maintenance of fire alarm systems should be in accordance with applicable local installation codes. This maintenance guide has been written in conjunction with British Standard BS5839: Part 1.



Important Note: other local installation codes may vary.

The owner or person in charge of the premises should appoint a responsible person to co-ordinate fire safety plans to make sure people on or around the premises are safe.

The responsible person should be given sufficient authority to ensure any necessary work is undertaken to maintain system operation. This will include keeping a log book and ensuring that recommended servicing is undertaken, as outlined in this document and in applicable local codes of practice.

Procedures should be laid down for dealing with fire alarms, fault warning or taking part or all of the system out of service. These procedures should be approved by the appropriate fire authority before implementation.

The responsible person should ensure that users of the system are instructed in its proper use. Any members of staff who will be concerned with first aid fire-fighting should be instructed in the correct interpretation of the indications given and their relationship with the building layout. All management, staff and in most cases long term occupants, should be instructed and practised in the proper actions to be taken in the event of a fire.

The responsible person should establish a liaison with those responsible for changes in or maintenance of the building fabric (*including redecoration, etc.*) to ensure that their work does not cause faults on, or otherwise interfere with the operation of, the fire alarm system. If structural or occupancy changes occur or are planned, then the responsible person should ensure that any necessary changes to the fire alarm system are considered at an early stage.

The responsible person should ensure that a clear space is presented in all directions below every detector, and that all manual call points remain unobstructed and conspicuous.

Pre-testing guidelines

It is important to ensure that operation during testing does not result in a false fire alarm. If the fire alarm system is monitored by an Alarm Receiving Centre (ARC), then transmission should be prevented (*for instance by placing the SmartCell control panel into an appropriate test mode*) before the routine test is carried out, since under normal condition test calls are not permitted.

WARNING: zones placed in test should be restored as soon as possible, to restore normal system operation and to protect occupants of the building.

If transmission of signals to a remote manned central station is prevented during test, a visual indication of this state should be given at the control equipment.

If a link to a remote manned central station is to be used during the test, it is essential to notify them before undertaking the test, unless a recognised test procedure is regularly carried out at an agreed time.

Recipients of SmartCell Services messages should also be notified before undertaking the test. Alternatively the SmartCell control panel may be placed into an appropriate test mode, before the routine test is carried out to prevent signals being sent.

The occupants of the premises should be notified of any system testing that may result in the sounders being operated.

Daily maintenance

A check should be made every day to ascertain the following:-

- a) Ensure that the SmartCell control panel is indicating a 'system normal' condition (*i.e. no alarm or faults LED's should be lit*). The OLED display should also show the correct time and date.

Note: If the panel is not indicating a normal condition, record the condition in the log book and take necessary action.

- b) Check that any fault recorded on the previous day has received appropriate attention.

Weekly maintenance

These checks would normally be carried out by a responsible member of the building staff. They should also be carried out by the service engineer after all routine maintenance checks.



WARN ALL PERSONNEL THAT THE SOUNDERS ARE ABOUT TO BE TESTED. TELEPHONE CENTRAL STATION (IF APPLICABLE) AND INFORM THEM THAT A TEST IS ABOUT TO TAKE PLACE

The fire alarm system testing should be in accordance with applicable local installation codes.

The following checks should be made:-

- a) If necessary, clean the front of the SmartCell control panel with a suitable cleansing agent. I.e. anti static cleansing wipes.
- b) Set a call point into alarm, by pressing its resettable element. Refer to the Call Point Installation Guide (*TSD087*) for further details on Call Point operation.
 - i) The SmartCell control panel's internal buzzer will sound (*unless disabled in programming*).
 - ii) The SmartCell control panel's red 'FIRE' LED and the appropriate red 'FIRE ZONE' LED will illuminate.
 - iii) The SmartCell fire sounder's will ring as programmed.
 - v) Associated SmartCell fire beacons will also operate.
 - vi) The SmartCell control panel's OLED display gives the location of the alarm activation.
 - vii) The SmartCell control panel and Input/Output device relay outputs will operate, triggering third party ancillary devices as programmed. The ARC or SmartCell services signalling will also be sent.
- c) Record the device used to initiate the test in the site log book. Reset the call point with the reset key, and silence and reset the SmartCell control panel. Refer to the 'How to clear a fire event' section of the SmartCell User Guide (*TSD113*) for full details.
- d) Ensure that SmartCell Services messages have been received at the recipients device (*if applicable*).
- e) Contact the ARC (*if applicable*), to confirm test signal was received and signal is now in normal status. Confirm tests are now completed.

Any defects should be recorded in the SmartCell log book and appropriate action taken.

Six monthly maintenance should be based on a risk assessment, taking into account the type of system installed, the environment in which it operates in and other factors that may affect the long term operation of the system as per applicable local installation codes.

Six monthly maintenance

The following checks should be made:-

- a) Perform the weekly checks.
- b) Check the entries in the log book and carry out any necessary action.
- c) Test all call points and 50% of automatic devices and confirm correct operation.
- d) Check device signal strength readings against the recorded commissioning levels, as per SmartCell minimum requirements.
- e) Check all fault indicators by simulating a FAULT condition in each zone, by removing a device from its mounting plate.
- f) Visually check the condition of the SmartCell control panel and other ancillary equipment for signs of moisture ingress and other deterioration.
- g) Make overall visual examination, test fixings and adjust if necessary.

Check voltage (24V, 12V, 6V), test current draw (mA), test stand-by batteries on load. Check all battery connections. Check the SmartCell control panel's battery. The use of an ACT meter is recommended.

- h) The alarm functions of the SmartCell control panel should be checked by the operation of a detector or call point in each zone. The operation of the alarm sounders and any link to an ARC should also be tested.
- i) Ensure that a clear space of at least 750 mm is preserved in all directions below heat and smoke detectors, and that all manual call points remain unobstructed and conspicuous.

Any defects should be recorded in the SmartCell log book and appropriate action taken.

Yearly maintenance

The following checks should be made:-

- a) Carry out all six monthly checks.
- b) Visually check the inside and outside of the SmartCell control panel for damage.
- c) Check for damage and paint on all detection devices.
- d) Check for damage and accumulations of dirt on smoke detectors.

DO NOT CLEAN; detectors MUST be cleaned and repaired by the manufacturers authorised representative.

- e) Check the fixings for the SmartCell control panel and devices, which form part of the fire detection system.
- f) Check the cable fixings at the SmartCell control panel and each ancillary device for correct connection.
- g) All remaining detectors and call points not tested in six monthly checks should be tested for correct operation.
- h) Replacement batteries are required in the following equipment:
 - i) Information transmitter
- i) The 'Battery information' section refers to recommended replacement battery requirements.
- j) When changing device batteries, observe the following:
 - i) Only use manufacturer approved battery types. Failure to do so may result in damage to the product.
 - ii) When replacing batteries; remove all old batteries before fitting replacements.
 - iii) When removing device batteries, avoid using metallic instruments that may cause a short circuit.

Any defects should be recorded in the SmartCell log book and appropriate action taken.

Three yearly maintenance

The following checks should be made:-

- a) Carry out all annual checks.
- b) Inform the responsible person that “x” number of batteries require to be replaced.
- c) Replacement batteries are required in the following equipment;
 - i) All wireless devices
 - ii) Control panel
- d) The ‘Battery information’ section refers to recommended replacement battery requirements.
- e) When changing device batteries, observe the following:
 - i) Only use manufacturer approved battery types. Failure to do so may result in damage to the product.
 - ii) DO NOT mix batteries of different type or age.
 - iii) When replacing batteries; remove all old batteries before fitting replacements.
 - iv) When removing device batteries, avoid using metallic instruments that may cause a short circuit.
 - v) When changing the control panel battery, follow the ‘Control panel battery replacement’ section.
- f) The responsible person should ensure that every three years (*or more frequently if the building electrical system is tested at shorter intervals*) that installation should be tested in accordance with the testing and inspection requirements of current IEE wiring regulations. Any defects should be recorded in the SmartCell log book and reported to the responsible person, and remedial action should be undertaken.
- g) On completion of the work, a certificate of testing should be given to the responsible person.

Control panel battery replacement



Note: ensure that a correct battery type is used. See the 'Battery information' section for more information.

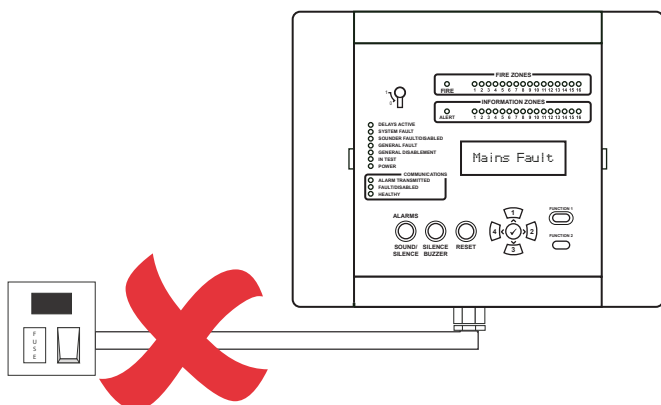


Note: dispose of your batteries in an environmentally friendly manner according to your local regulations.

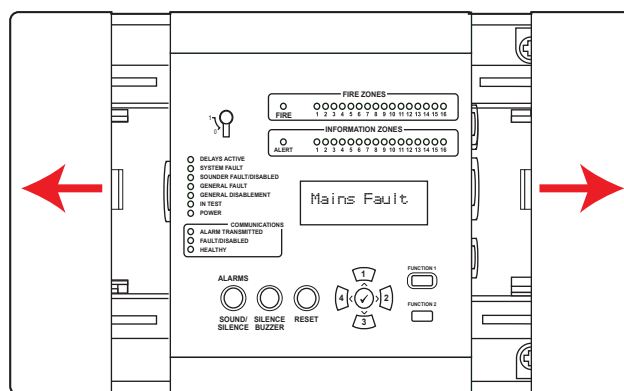
When carrying out a routine battery change, the following steps should be followed.

1 Disconnect mains supply

The mains supply must be disconnected before any further work commences.

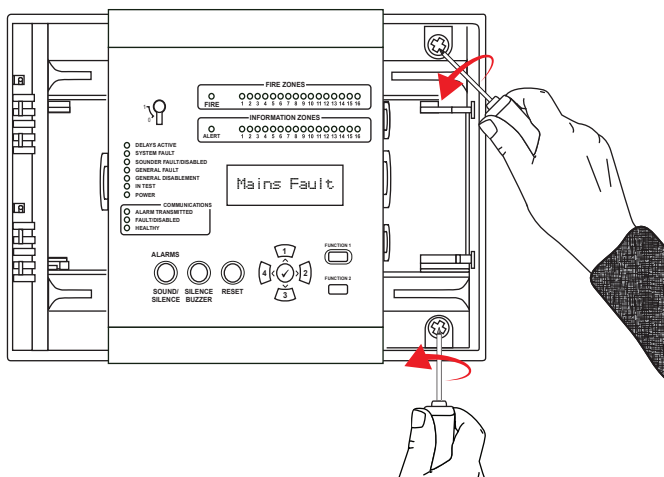


2 Unclip the side panels



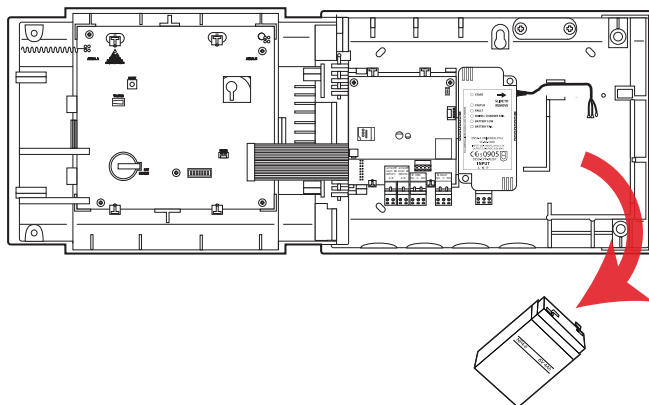
3 Open the door

Loosen the two screws, then open the door.



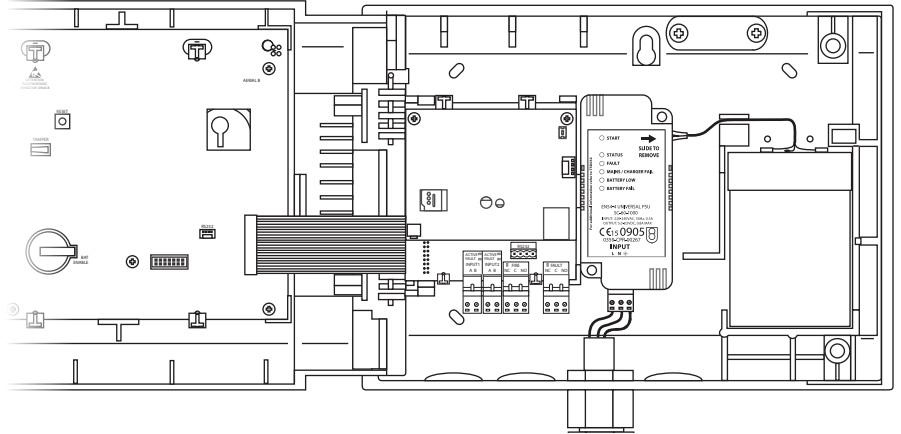
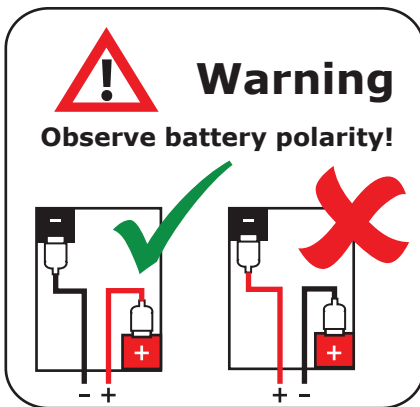
4 Remove battery

Carefully disconnect and remove the battery. The battery should be kept in a safe place and protected against short circuit.



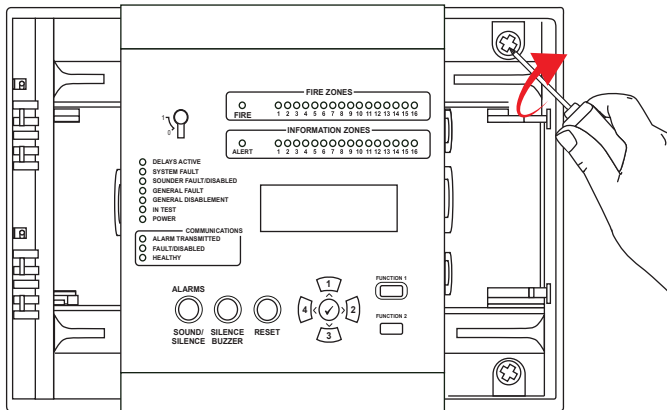
5 Replace the battery

Re-fit the control panel batteries, observing the correct polarity.



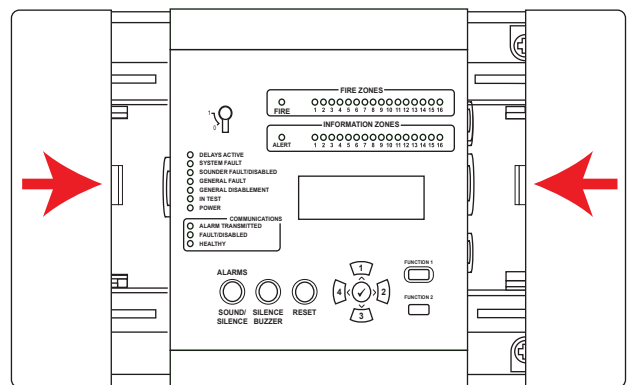
6 Close the control panel

Close the door and tighten the screws until secure.



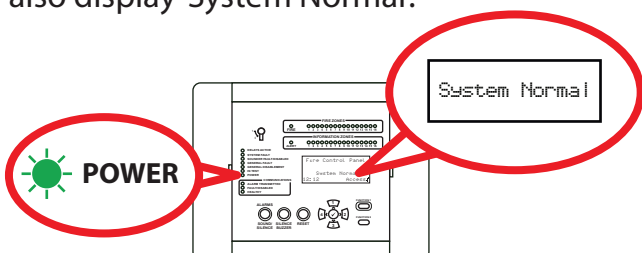
7 Re-fit the side panels

The side panels must now be clipped back into place.



8 Apply power

Apply power to the control panel. The green power LED will illuminate and all other LEDs should be extinguished. The screen should also display 'System Normal'.



9 Check the panel

Check that after 5 minutes that the panel is fault free. Battery replacement is complete.



Battery information

Equipment type	Typical battery life	Batteries required	Part number(s)
SmartCell control panel	Up to 5 years * (3 yearly change recommended†)	1x 6V 4Ah <i>Yuasa: NP4-6 FR</i>	SC-006-004
SmartDoor	Up to 5 years *	2 x 1.5V C Alkaline <i>Panasonic: LR14AD</i> <i>Varta: 4014</i>	FC-810-000
Call point	3 years*	2 x 3.6V lithium <i>Fanso: ER14505M</i> <i>HCB: ER14505M</i> (HCB-JS-TZ-02-547)	SC-836-000
All detector, sounder and beacon variants, remote indicators & input / output devices	3 years*	3 x 3.6V lithium <i>Fanso: ER14505M</i> <i>HCB: ER14505M</i> (HCB-JS-TZ-02-547)	SC-836-000
Information transmitter	1 year*	1 x x 3.6V lithium <i>Fanso: ER14505M</i> <i>HCB: ER14505M</i> (HCB-JS-TZ-02-547)	SC-836-000

* Typical battery life, based on normal usage and environmental conditions.

† Note; it is however recommended to replace the control panel battery every 3 years for confirmed 48 hours battery standby time.

SmartCell

www.mysmartcell.com

The information contained within this literature is correct at time of publishing. EMS reserves the right to change any information regarding products as part of its continual development enhancing new technology and reliability. EMS advises that any product literature issue numbers are checked with its head office prior to any formal specification being written.