EMS

FirePoint

5000

LITHIUM BATTERY BOARD
INSTALLATION GUIDE

EMS 5000 FIREPOINT

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1. Introduction

The following 5000n FirePoint lithium battery board installation instructions have been written as a guide, covering the different options open to the installer to change over the battery packs and to update the panels battery information. The instructions include the use of our TSA software along with the manual replacement.

2. How To Carry Out Battery Board Replacements

There are two methods of carrying out battery board replacements. The first method is a straight manual replacement and the second uses the same method but is assisted with the TSA Software package.

2.1 How To Carry Out Manual Battery Board Replacement

When changing battery boards, it is very important to put the panel into test, and to NOT make any isolations. Should any isolations occur, new battery information will not be seen. **See '3 How To Put Zones Into Test' section for more details.**

We recommend that the lithium battery board be replaced at the panel to reduce the possibility of missing battery information. It is also recommended that the device once repowered be left on top of the panel for ten minutes until the panel receives the devices battery data. **See '4 Battery Board Replacement' section for more details.**

You may notice that you are able to reset the device's fault. However, the fault will return upon the next call in should the information not be received, (6-9 mins later).

If the battery information has not been received, it would take two weeks before the device resends it's battery information if left. However by repowering the device, the information will be resent. This is due to the signal being of low priority, when compared to any other signals.

Once the data is received the fault will not return. The battery left info, shown in the device database will also update to 100%. **See '5 Viewing Battery Left' section for more details.**

Note: All sounders must be reconfigured eg; Join Group and Set Sys messages must be sent. **See '6 Reconfiguring Sounders' section for more details.**

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2.2 How To Carry Out TSA Assisted Battery Board Changes

Alternatively, for larger quantities of battery board changes, it is recommended that TSA software be used to assist the changeover. This is available, subject to completion of our 5000 FirePoint and TSA training sessions.

The main advantage with this method is that you don't have to change the battery boards at the panel.

The first step is to extract the FPS setup from the panel. **See the help files on the TSA program for more details.**

Once the setup is extracted, put all zones into test. **See '3 How To Put Zones Into Test' section for more details.**

Now change all of the battery boards in their locations. **See '4 Battery Board Replacement' section for more details.**

Now that all of the battery boards have been changed cold start the panel.

Now upload the setup to the panel. **See the help files on the TSA program for more details. Once completed, warm start the panel.**

Sounders would also require reconfiguring as previously highlighted. **See '6 Reconfiguring Sounders' section for more details.**

Clear the PR fault by silencing and resetting the panel.

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3. How To Put Zones Into Test

To put zones into test on the system 5000, Insert the key into the Panels Control Keyswitch, Located at the right of the panel. Turn the key to the "ON" position. Should the screen display faults press the "0" key and proceed to step 4. Otherwise: -

Step No	Action	Screen Display
1	With the key the "ON" position, the screen will display:	Panel in Access Date Time
2	Press the "0" key and the screen will now display:	|***Options **** | > Passwords < | Time and Date | Yes =Select Time
3	Press the "∇" key until the screen displays:	| Logging | > Fire System Opts < | Remote Access | Yes= Select Time
4	Press the "YES" key and the screen will now display:	|** Fire system ** | > Dev. Isolate /Test < | Net. Isolate /Test | Yes= Select Time
5	Press the "∇" key until the screen displays:	| Brigade Isolate | >Engineers Config < | Printer Options | Yes= Select Time
6	Press the "YES" key and the screen will now display:	Enter Your PIN For Access> Then Press YES Time
7	Enter "221100" then press the "YES" Key and the screen will display:	|** Eng. Config ** | >Device Database < | Sounder Options | Yes= Select Time
8	Press the "∇" key until the screen displays:	| Reset Security | >Reset System < | Lan Options | Yes= Select Time
9	Press the "YES" key and the screen will display:	*** SYSTEM RESET ***

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10	Press the "0" key and the screen will display:	`| ** Main Menu ** |`
		`> Pins & Access <`
		`| System Support |`
		`Yes= Select    Time`

11	Press the "∇" key until the screen displays:	`| Bus I/O        |`
		`> Fire dBase    <`
		`| Remote Access  |`
		`Yes= Select    Time`

12	Press the "YES" key and the screen will display:	`|** Fire system **  |`
		`>Dev. Isolate /Test <`
		`| Net. Isolate /Test |`
		`Yes= Select    Time`

13	Press the "∇" key until the screen displays:	`| Net. Isolate /Test |`
		`> Zone. Isolate /Test <`
		`| Brigade Isolate   |`
		`Yes= Select    Time`

14	Press the "YES" key and the screen will display:	`| ** Zone Status **  |`
		`> Zone  is: 01   <`
		`| Status   : ALL   |`
		`Yes= Select    Time`

15	Press the "∇" key and the screen will now display: (Make note of the status the zones is in e.g. ALL, the status will need to be changed back later)	`| Zone is   : 01   |`
		`> Status   : ALL   <`
		`|^^^^^^^^^^^^^ |`
		`Yes= Select    Time`

16	Press the "YES" key twice and the screen will now display: (notice as the "YES" key is pressed the status changes)	`| Zone is   : 01   |`
		`> Status   : TEST  <`
		`|^^^^^^^^^^^^^|`
		`Yes= Select    Time`

17	Press the "Δ" key until the screen displays:	`| ** Zone Status **  |`
		`> Zone  is: 01   <`
		`| Status   : TEST  |`
		`Yes= Select    Time`

18	Press the "YES" key and the screen will now display:	`| ** Zone Status **  |`
		`> Zone  is: 02   <`
		`| Status   : ALL   |`
		`Yes= Select    Time`

19	Press the "∇" key until the screen displays:	`| Zone is   : 02   |`
		`> Status   : ALL   <`
		`|^^^^^^^^^^^^^ |`
		`Yes= Select    Time`

20	Press the "YES" key and the screen will now display: (notice as the "YES" key is pressed the status changes)	`| Zone is   : 02   |`
		`> Status   : TEST  <`
		`|^^^^^^^^^^^^^ |`
		`Yes= Select    Time`

This needs to be repeated until all the Detector Zones are in test, then continue to step 21.

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21   Press the "NO" key three times and the screen will now display:

Panel in Access
Date   Time

22   Turn the control key to the "OFF" position. The screen will now display:

Status Normal
Date   Time
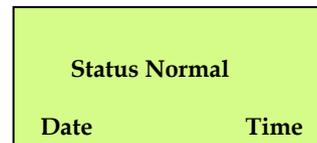
Note: This procedure will be required to be carried out on all control panels on site.

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4. Battery Board Replacement

4.1 Handling Precautions

General.

Care should be taken when handling 5000 FirePoint electronic parts. Avoid dropping any of the parts onto hard surfaces, as damage may occur to the case and internal circuitry.

ESD Precautions.

5000 FirePoint includes components, which are susceptible to damage from Electro-Static Discharge (ESD). Permanent damage may be caused to these components through routine handling if precautions are not observed. To reduce the risk of damage from ESD, the following precautions should be observed.

- Minimise the handling of PCB's, which contain static sensitive devices.

- Where handling is unavoidable, always ensure that you have taken adequate earthing precautions. An earthed wrist strap is recommended.

- When storing or transporting a "loose" PCB, always use a container that has been designed and manufactured with ESD protective properties.

- Avoid placing static sensitive devices on plastic surfaces, which may increase the risk of a static discharge.

Packaging

All products should be kept in their packaging until they are due to be installed, to minimise the risk of damage. Retain all packaging until the installation activities have been completed. Should any product be found to be surplus to requirements, or require returning to EMS, the original packaging should be used.

IMPORTANT NOTICE

All Lithium Battery PCBs must be installed within 3 weeks of receipt of all goods from EMS, to ensure full functionality.

4.2 How To Change Battery Boards

All battery boards should be changed next to the panel unless TSA Software is used. There are three main types of battery boards. They are as follows: -

Radio Detector Battery Board, (5-5805).

Tamper Switch

Isolate & Log on Jumper

Battery Board fixing
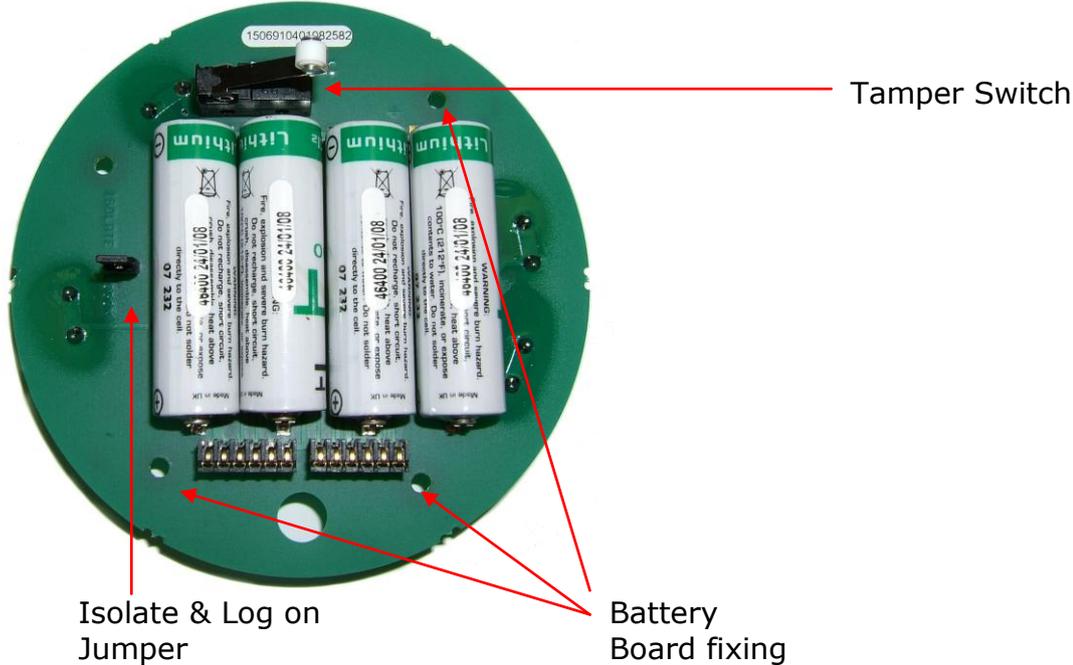
Figure 1

Unscrew and remove the detector head.

Press the plastic release button and turn anti-clockwise to as shown left to remove the base.

Release Button

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Once the base has been removed, take out the three battery board fixing screws, (as shown in figure 1).

The battery board and transmitter /processor board can now be removed from the casing.

The battery board can now be separated from the transmitter / processor board. Remove carefully without damaging the pins.

Now replace the battery board with a new one and reassemble the detector.

Figure 2

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Radio Call Point Battery board, (5-5806).

TX 740 Isolate

Isolate 3V5

Remove this screw to release the callpoint battery board from the casing.

Now replace the battery board and reassemble the device.

Radio Sounder Battery Board, (5-5807).
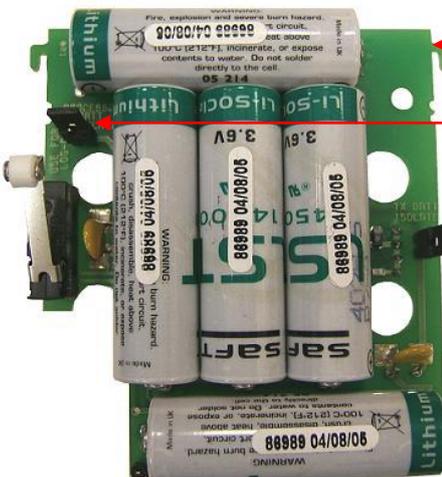
Battery Board Hooks

Processor Batt Isolate

TX Batt Isolate

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The battery board slots onto the other board using the connectors as shown. Firstly disconnect these.
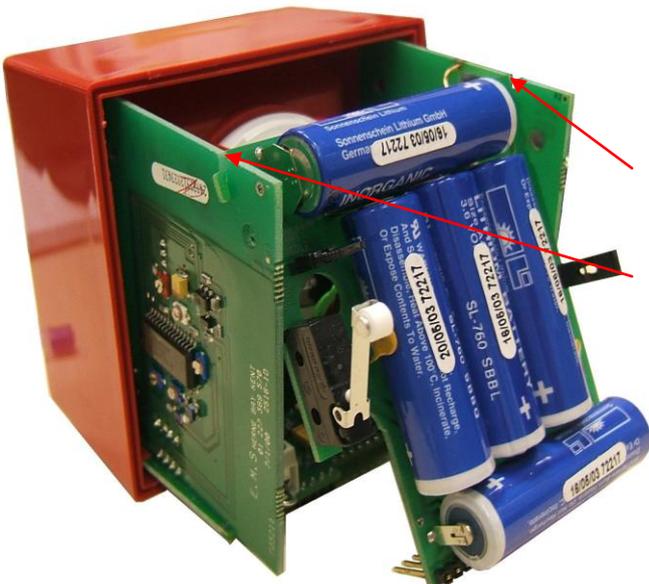
Once the connectors are unplugged, unhook the board.

Now replace the battery board and reassemble the device.

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5. Viewing Battery Left

To view the devices battery left levels on the 5000 FirePoint, insert the key into the Panels Control Keyswitch, Located at the right of the panel. Turn the key to the "ON" position. Should the screen display faults press the "0" key and proceed to step 4. Otherwise: -

Step No	Action	Screen Display
1	With the key the "ON" position, the screen will display:	**Panel in Access** **Date Time**
2	Press the "0" key and the screen will now display:	|***Options **** | > Passwords < | Time and Date | Yes =Select Time
3	Press the "∇" key until the screen displays:	| Logging | >Fire System Opts < | Remote Access | Yes = select Time
4	Press the "YES" key and the screen will now display:	|** Fire system ** | >Dev. Isolate /Test < | Net. Isolate /Test | Yes= Select Time
5	Press the "∇" key until the screen displays:	| Brigade Isolate | >Engineers Config < | Printer Options | Yes= Select Time
6	Press the "YES" key and the screen will now display:	Enter Your PIN For Access> Then Press YES Time
7	Press 221100 then press the "YES" key and the screen will display:	|** Eng. Config ** | >Device Database < | Sounder Options | Yes= Select Time
8	Press the "YES" key and the screen will now display:	|* FIRE DATABASE * | >Device Number 001 < |Default Device 001 | Yes= Select Time
9	Press the "0" key and the screen will now display:	Enter Device (Numbers 1-256) Number > _ YES = Finish Time

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10   Enter the device number that you want to assess (e.g. 25) then press the "YES" key and the screen will now display:

```
|* FIRE DATABASE * |
>Device Number  025 <
| Default Device  025 |
Yes= Select      Time
```

11   Now scroll down to Battery Left. If the Level has been updated it will show 100% battery life left. Else the battery information for that device has not yet been received.

```
| Head Value      000 |
>Battery Left     100<
| Default Device  025 |
Yes= Select      Time
```

Should you need to assess further devices battery info, return to step 9. Otherwise continue from step 12.

12   When completed, use the "NO" key Exit the menu's until the screen displays:

```
   Panel in Access

Date           Time
```

13   Turn the Key to the "OFF" position and the screen will display:

```
   Status Normal

Date           Time
```

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6. Reconfiguring Sounders

To reconfigure sounders on the 5000 FirePoint, insert the key into the Panels Control Keyswitch, Located at the right of the panel. Turn the key to the "ON" position. Should the screen display faults press the "0" key and proceed to step 4. Otherwise: -

Step No	Action	Screen Display
1	With the key the "ON" position, the screen will display:	**Panel in Access** Date Time
2	Press the "0" key and the screen will now display:	|***Options **** | >Passwords < | Time and Date | Yes =Select Time
3	Press the "∇" key until the screen displays:	| Logging | > Fire System Opts < | Remote Access | Yes = select Time
4	Press the "YES" key and the screen will now display:	|** Fire system ** | > Dev. Isolate/Test < | Net. Isolate/Test | Yes= Select Time
5	Press the "∇" key until the screen displays:	| Brigade Isolate | > Engineers Config < | Printer Options | Yes= Select Time
6	Press the "YES" key and the screen will now display:	Enter Your PIN For Access> Then Press YES Time
7	Press 221100 then press the "YES" key and the screen will display:	|** Eng.; Config ** | > Device Database < | Sounder Options | Yes= Select Time
8	Press the "∇" key once and the screen will display:	| Device Database | >Sounder Options < | List Options | Yes= Select Time
9	Press the "YES" key twice and the screen will now display: (the first press of Yes enters you into the sounder options menu the second press of Yes does a configure stop)	| Sounder Config | > Configure STOP < | Configure START | Yes= Select Time

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10	Press the "∇" key until the screen displays:

```
| Configure START   |
 >Configure ONE     <
| ^^^^^^^^^^^^^^^^ |
Yes= Select      Time
```

11	Press the "YES" key and the screen will now display:

```
|** Configure **    |
 >Sounder : ALLCFGD<
|Action   : FIRE    |
Yes= Select      Time
```

12	Press the "YES" key to toggle though the device numbers until you get to the sounder that requires testing. (e.g. 025)

```
|** Configure **    |
 >Sounder : 025    <
|Action   : FIRE    |
Yes= Select      Time
```

13	Press the "∇" key once and the screen will display:

```
| Sounder : 025     |
 >Action   : FIRE   <
| Do Action         |
Yes= Select      Time
```

14	Press the "YES" key to toggle though the different types of action commands until you reach 'set sys'.

```
| Sounder : 025     |
 >Action   : SET SYS <
| Do Action         |
Yes= Select      Time
```

15	Now press the "∇" key once and the screen will display:

```
| Action   : SET SYS |
 > Do Action        <
| ^^^^^^^^^^^^^^ |
Yes= Select      Time
```

16	Press the "YES" key and the screen will now display:

```
Device 025  Timer 9
Retry 07  REPLY NONE

Push Any Key     Time
```

This timer will count down to 0, when the timer reaches 0 the retry should change to 6 and a message is sent to the sounder. If not, that means the panel is still busy and the timer will start again. When the selected sounder has accepted the command, the display will change to show an acknowledgement message, (ACK).

```
Device 025  Timer 5
Retry 04  REPLY ACK

Push Any Key     Time
```

If the acknowledgement message has been received the sounders configuration is now complete.

17	Press Any key and the screen will now display:

```
| Action   :   SET SYS|
 >Do Action         <
| ^^^^^^^^^^^^^ |
Yes= Select      Time
```

18	Press the "∆" key until the screen displays:

```
| Sounder : 025     |
 >Action   : SET SYS <
| Do Action         |
Yes= Select      Time
```

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19   Now press the "YES" key until the screen displays:

```
| Sounder : 025        |
 >Action    : JOIN GRP <
| Do Action            |
Yes= Select        Time
```

20   Now press the "∇" key once and the screen will display:

```
| Action   : JOIN GRP |
 >Do Action          <
| ^^^^^^^^^^^^^^^ |
Yes= Select        Time
```

21   Press the "YES" key and the screen will now display:

```
Device 025  Timer 9
Retry 07  REPLY NONE

 Push Any Key     Time
```

22   Once completed the screen should display:

```
Device 025  Timer 5
Retry 04   REPLY ACK

 Push Any Key     Time
```

Should more devices require configuring, go back to step 12. Otherwise, continue to step 22.

23   When completed, use the **"NO"** key exit the menu's until the screen displays:

```
   Panel in Access

Date            Time
```

24   Turn the Key to the "OFF" position and   the screen will display:

```
   Status Normal

Date            Time
```

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