Smart Wireless 7 on Maritar

Intelligent Wireless Zone Monitor

Quick Start Guide

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Introduction

This quick start guide will show you how to set up the SmartCell Wireless Zone Monitor (WZM), for connection to either addressable or conventional fire alarm systems. For advanced programming, refer to the 'SmartCell Wireless Zone Monitor Programming Guide' (*MK067*).

Note: this quick start guide will cover the method of adding devices via power-up. Refer to the programming guide for more information of alternative methods.

Important notes



The installation must conform to applicable local installation codes and should only be installed by a fully trained competent person.



Always select an appropriate device type for the application as per local codes of practice, or as advised by a qualified professional.



The procedures outlined in this installation guide must be carefully followed.



SmartCell devices contain electronics that may be susceptible to damage from Electro Static Discharge (ESD). Take appropriate precautions when handling electronic boards.



To ensure correct operation, products must be used within the specified environmental operating conditions.

Additional documentation

The below QR codes provide links to the a wide range of WZM information, including:

- Wireless Zone Monitor Programming Guide (*MK067*)
- Wireless Zone Monitor Installation Guide (TSD127)
- Wireless Zone Monitor Datasheet
- Wireless Zone Monitor certification



Wireless Zone Monitor (230 VAC version):



Wireless Zone Monitor (24 VDC version):

Note: Should you be unable to scan the QR code, visit the following website addresses:

Wireless Zone Monitor (230 VAC version):

https://firesecurityproducts.com/en/product/fire/SC_13_1100_0001_99/83586

Wireless Zone Monitor (24 VDC version):

https://firesecurityproducts.com/en/product/fire/SC_13_2100_0001_99/83591

Overview of system setup

Step 1

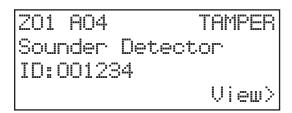
Install the SmartCell WZM.

Step 2

Log on devices required for the installation - Smoke detectors, heat detectors, call points, sounders and input / output devices, etc.

Enter device location text.

Note: If devices and zones are not programmed with custom text labelling, default text will be displayed. E.g.



Example device fault with default device text:

Step 3

Change device default settings if required in accordance with local codes of practice, or as professionally advised.

Step 4

Set the WZM to match the connected fire control panel type (either conventional or addressable).

Step 5

Configure sounder tones, durations and activation methods.

Step 6

Check all device signal levels are stated as 'GOOD'.

Step 7

Test every device for correct operation, using appropriate test equipment.

Note: sounders may activate upon activation of a wireless device if the 'Sounder activation method' is set to 'Immediate'.

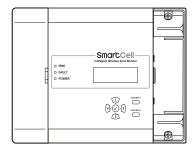
Step 8

Weekly test the system in accordance with local codes of practice.

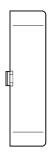
Step 9

Maintain the system in accordance with local codes of practice and manufacturers recommendations.

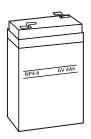
What's in the box



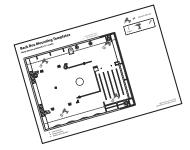
SmartCell WZM



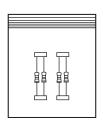
Right hand side cover



6V 4Ah battery



WZM fixing template



Resistor pack

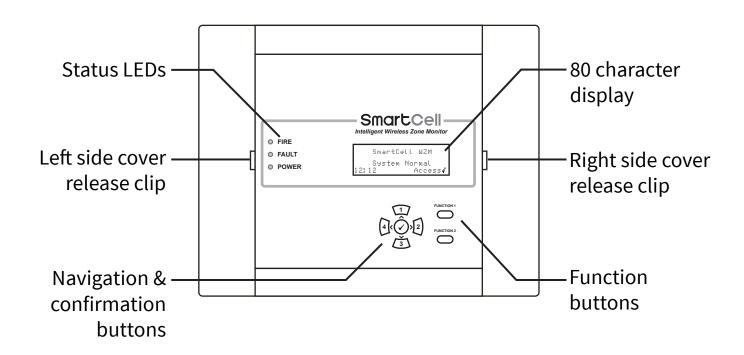


Log on magnet



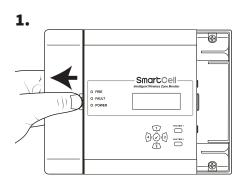
key

WZM features

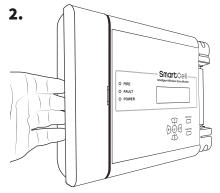


Side cover removal

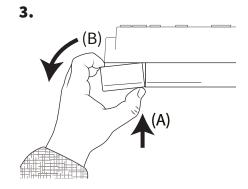
The following steps illustrate how to remove the side covers:



Slide the side cover sideways, creating a gap as shown.



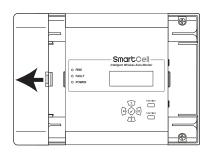
Position your fingers behind the cover's protruding edge.



Press the cover's releasing clip with your thumb (A), and simultaneously rotate the side cover anti-clockwise (B), as viewed overhead to remove the cover.

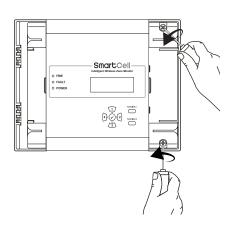
Open WZM

1. Unclip side cover.

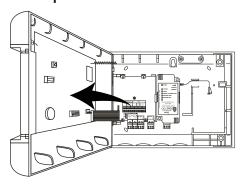


Refer to the 'Side cover removal' section (page 8) for details.

2. Loosen screws.



3. Open door.

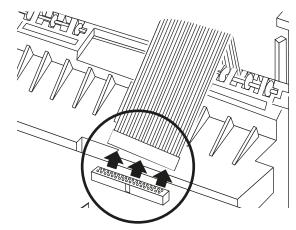


230 VAC variant shown

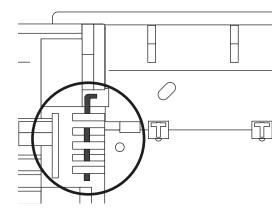
Optional door removal

Disconnect the ribbon cable, then turn and release the door hinges.

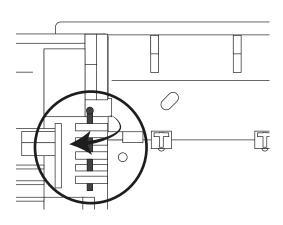
1.



2.



3.

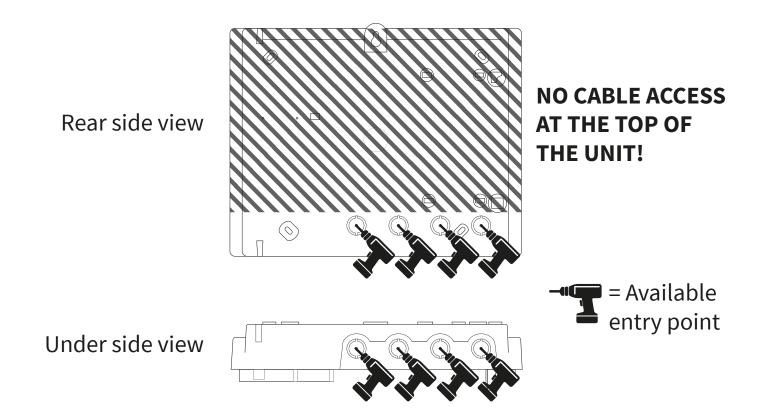


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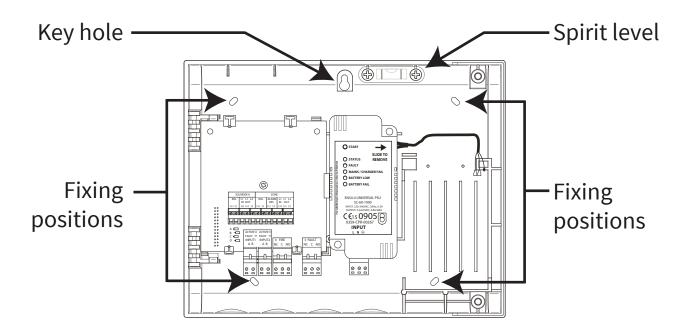
MK349-0001-99 (Issue 1) 22/10/2020 AJM

Cable entry

Select cable entry points as required, before fitting to the wall.



Fix WZM to wall

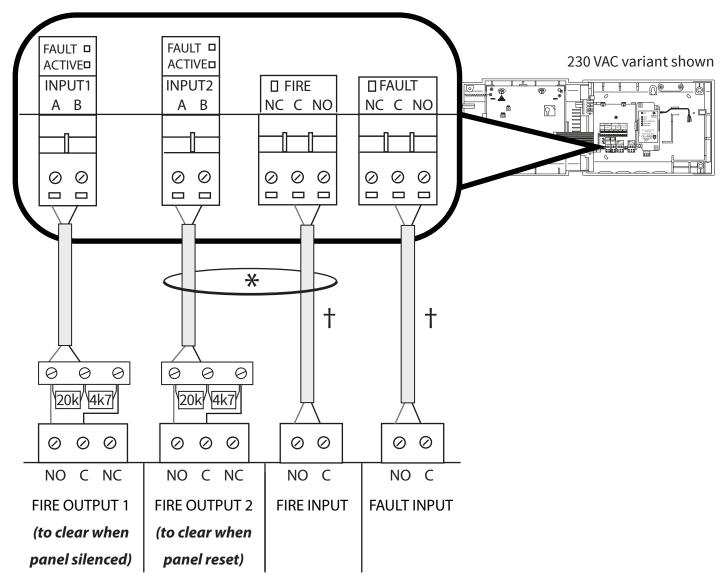




Note: the supplied back box mounting template can be used to drill the fixing positions.

Addressable fire system wiring

- SKIP THIS STEP IF CONNECTING TO A CONVENTIONAL FIRE SYSTEM.
- Wire the inputs as shown below, using the resistor pack provided.
- If an input is not being used, leave the 20 k Ω resistor as factory fitted.
- Both outputs are voltage free and rated 30 V @ 1 A.
- The maximum cable length to connected devices is 10 m.



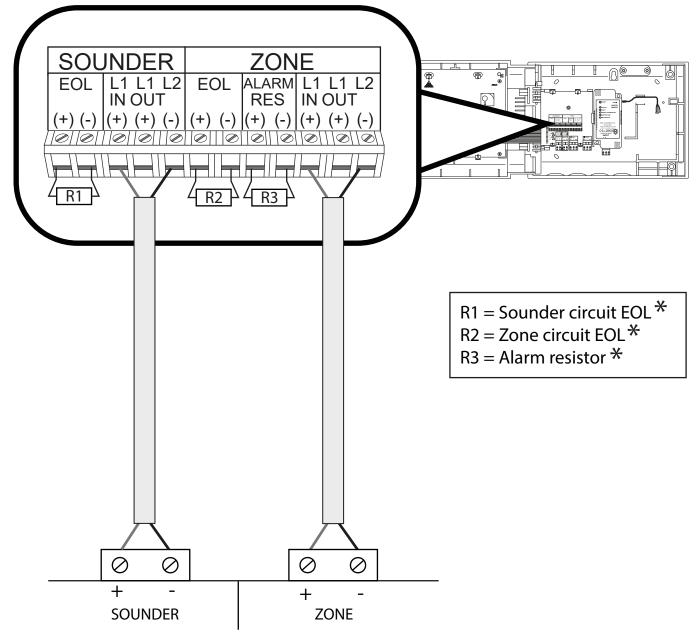
Addressable fire system connections

FOOTNOTES

- * Optional cabling, required only when the following SmartCell devices are added to the WZM; detectors, call points and I/O Units (I/O units when set to 'Off When Reset') see page 31 for details on this feature.
- † Wiring can be normally open or normally closed operation as required.

Conventional fire system wiring

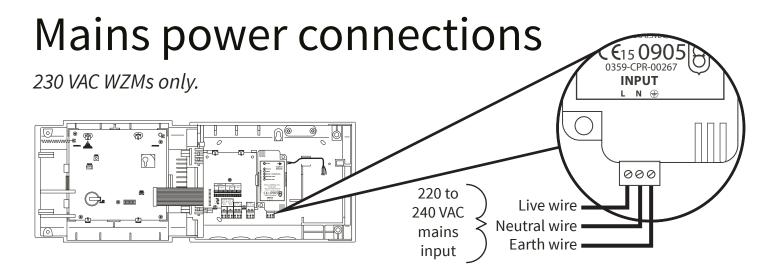
- SKIP THIS STEP IF CONNECTING TO AN ADDRESSABLE FIRE SYSTEM.
- The WZM must be connected to a dedicated zone and sounder output.
- The maximum cable length to connected devices is 10 m.



Conventional fire system connections

FOOTNOTES

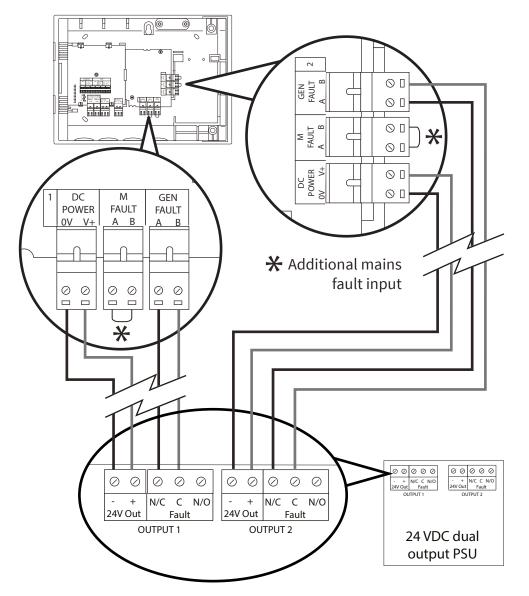
* Ensure that the manufacturer's specified end of line components and triggering resistors are fitted. See the control panel's instructions for more information.



24 VDC power connections

24 VDC WZMs only.

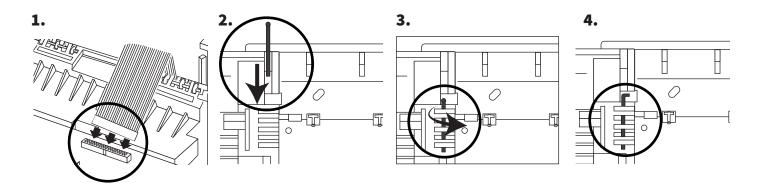
The 24 VDC SmartCell WZM is designed to be powered from 2x 24 VDC power sources, to meet country specific requirements.



- Connect both power inputs.
- There are also general fault inputs (GEN FAULT) and mains fault (M FAULT) available.
- The fault inputs are NC and voltage free.
- If a fault input
 (GEN FAULT or M
 FAULT) is not being
 used, leave the link
 as factory fitted.

Re-fit door

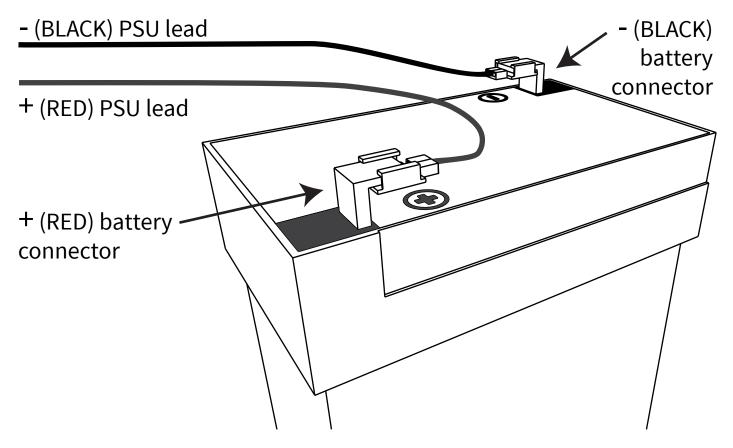
Re-connect the ribbon cable and re-fit the door hinges.



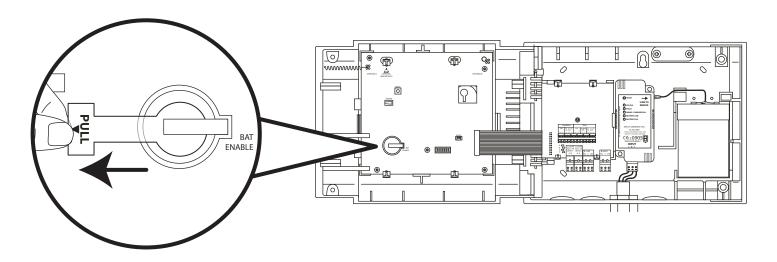
Connect backup battery.

230 VAC WZMs only.



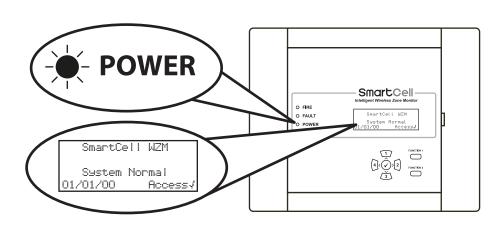


Remove 3V battery tab.



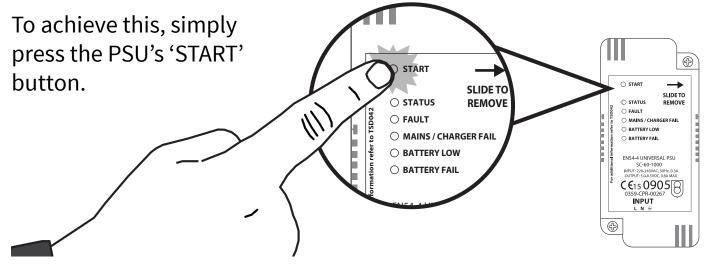
Apply power

The power supply to the WZM can now be switched on.





Note: If mains supply is unavailable at this point, the WZM can be temporarily powered by the back-up battery.



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Engineer menu entry

The following steps are required to access the engineer menu (access level 3).

With the SmartCell WZM in its normal state the screen will display:

Press the button and the screen will display:

Enter the engineer PIN code (default '333333'), then press the \checkmark button to confirm. The screen will display:

Followed by:

SmartCell WZM System Normal 14:18 Access/

For Access
Enter Code:_
Press / To Complete

* Welcome Service *
Access Level 3
Now Available
All Buttons Active

*View System Status Maintenance/Test Device Options WZM Settinss

All engineer menus are now available. You can now:

- Set the time & date
- Configure the WZM
- Program devices to the system
- Enter device text
- Configure devices, i.e. device sensitivities, sounder tones etc.

Set time & date

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the button and the screen will display:

Press the <u>3</u> button once. The screen will display:

Press the button and the screen will display:

Press the button and the screen will display:

To change the time, press the \checkmark button and the screen will display: The following buttons are required to set the time:

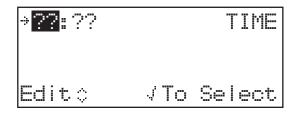
*WZM Information Language Select Factory Access Reports ≎

†Edit Users WZM Options System Options Communications ≎

Edit Users *WZM Options System Options Communication :

⇒Set Time \$ Date Lamp/Buzzer Test Front Screen Text WZM LED Disable :

÷??:?? TIME ??/??/?? DATE DD/MM/YY FORMAT Press √ To Select

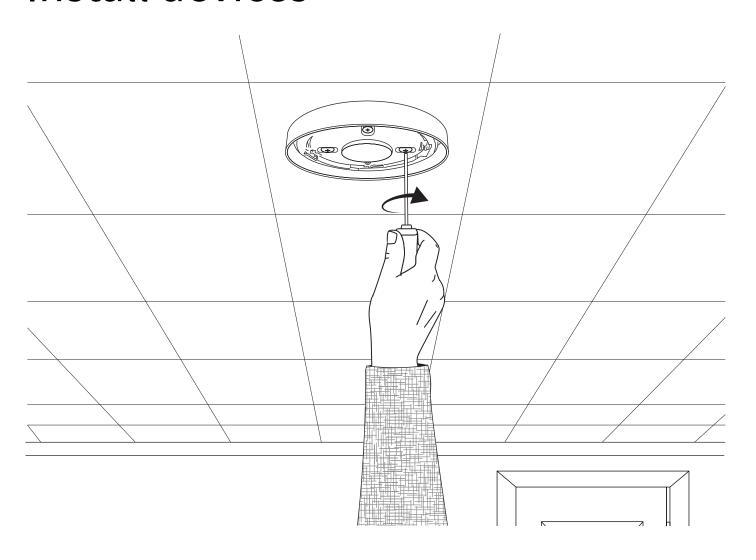


Button(s)	Action
1 3	Increases and decreases the selected value.
4 2	Moves the cursor between the hour and minute selections.
	Saves the changes and returns to the previous screen.



Note: the same process is used for changing the date.

Install devices





Note: Refer to the associated device installation guide for full details.

Add devices to system

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the button and the screen will display:

Press the button and the screen will display*:

Press the button and the screen will display:

Insert the device's batteries and the screen will change to show:

Check that the device ident on-screen matches the device ident shown on the barcode label. Press \checkmark to confirm, or \checkmark to cancel. If accepted, the screen will display:

Followed by:

Either continue adding new devices (by inserting batteries, or press 4 until the front screen is displayed.

View System Status Maintenance/Test Device Options ÷WZM Settings ≎

*Add New Device Remove Device Edit Settinss Sisnal Level Test ()

÷At WZM At Device Location Configure Devices

> Insert Batteries Into Device NOW

Add Fire Device ? Sounder Detector ID:001234 /Add <Exit

New FIRE Device Added ID:001234 Address 01

* Refer to the 'SmartCell Intelligent Wireless Zone Monitor Programming Guide' (MK067) for alternative programming methods.

Device attributes

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the button and the screen will display:

Press the <u>3</u> button until the screen displays:

Press the will display:

Press the 3 button until the device to configure is shown. Press the vbutton and the screen will display:

Press the will display:

Available options for each device type are shown overleaf.

View System Status Maintenance/Test >Device Options WZM Settinss

⇒Add New Device Remove Device Edit Settinss Sisnal Level Test ≎

Add New Device Remove Device >Edit Settinss Signal Level Test :

A01 ID:001234
Sounder Detector
ID:001234
Devices © Chanse>

AO3 ID:001236 Sounder Detector Beacon ID:001236 Devices (Chanse)

text Description

Detection- Dual

Smoke Sen- Normal

Heat Sen- 580 S≎

Menu Selection	Available options
Text Description	Refer to the 'Device location text' section overleaf.
Detection	Detection selection of 'Dual' (smoke & heat), 'Smoke Only' or 'Heat Only'.
Smoke Sen	Smoke sensitivity selection of; 'Normal*†' and 'Normal + AVF'. The AVF option allows additional verification of the alarm condition before reporting.
Heat Sen	Heat sensitivity selection of; '58 °C static*†', '58 °C rate of rise*', '72 °C static*', '72 °C rate of rise*'.
Sound Volume	Allows device sounder levels of; 'High' or 'Low'.
Self Sound	When enabled, the device will sound upon local alarm detection, whilst wireless communication with the WZM is lost.
Audio/Visual 45	Allows device sounder and beacon selection of; sounder & beacon, sounder only and beacon only.
O/P 1 OFF	Choose to switch the device's 'Output 1' off, when either the 'silence' or 'reset' button is pressed.
O/P 2 OFF	Choose to switch the device's 'Output 2' off, when either the 'silence' or 'reset' button is pressed.

^{*}Approved EN54 sensitivities † Default dual sensitivities

Device location text

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the button and the screen will display:

Press the 3 button until the screen displays:

Press the button and the screen will display the first device logged on to the system:

Press the 3 button to scroll through the devices until the required device is shown. Press the 4 button:

Press the will display:

Press the button and the screen will display:

Refer to the 'Text entry' section overleaf.

View System Status Maintenance/Test >Device Options WZM Settinss

†Add New Device Remove Device Edit Settinss Sisnal Level Test ≎

Add New Device Remove Device *Edit Settinss Sisnal Level Test :

A01 ID:001234 Sounder Detector ID:001234 Devices: Chanse

AO2 ID:001235 Dual Detector ID:001235 Devices: Chanse>

Text Description

Detection- Dual

Smoke Sen- Normal

Heat Sen- 58C S:

Dual Detector ID:001235 F1 ABC F2 De∣ete

Text entry

The following buttons will be required to enter new text descriptions:

Button	Action				
1	Moves the selected character through the alphabet (forwards), one character at a time.				
3	Moves the selected character through the alphabet (backwards), one character at a time.				
4	Moves the cursor (selected character) left, one character at a time.				
2	Moves the cursor (selected character) right, one character at a time.				
FUNCTION 1	Used to toggle character entry format between; upper case, lower case and number.				
FUNCTION 2	Provides a delete function; press for single character deletion, or press and hold to delete all text.				
\checkmark	Exits from the current screen. The user is asked whether to save the changes (button for yes and button for no).				

Set the panel type

Default panel type is 'Conventional'. If the WZM is to be connected to an addressable type fire panel, follow the steps below:

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the button and the screen will display:

ress the <u>streen</u> button and the screen will display:

Press the will display:

Press the will display:

View System Status Maintenance/Test Device Options WZM Settings

*Panel Type Sounder Options Device Indicator

→Conventional / Addressable

Conventional √ ÷Addressable ≎

+Addressable Panel Selected

Sounder tones

The default fire tone is TONE 5. Available tones are shown overleaf. To change the fire tone, follow the steps below:

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the will display:

Press the <u>3</u> button until the screen displays:

Press the \checkmark button and the screen will display:

Press the will display the currently selected tone:

Press the \checkmark button and the screen will display:

Press the \(\frac{1}{2} \) and \(\frac{3}{2} \) buttons to view the available tones and press the \(\sqrt{2} \) button to select the required tone:

View System Status Maintenance/Test Device Options >WZM Settings

Panel Type Sounder Options Device Indicator

Default Tone SelectSounder DurationSounder ActivationPulsed Output

⇒Fire Tone - 05

TONE	TONE TYPE	TONE DESCRIPTION / APPLICATION
1.		970Hz
2.		800Hz/970Hz at 2Hz
3.		800Hz - 970Hz at 1Hz
4.		970Hz 1s OFF / 1s ON
5.		970Hz, 0.5s / 630Hz at 1 Hz **Default fire tone**
6.		554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
7.	1111	500 - 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch slow whoop)
8.		420Hz 0.6s ON / 0.6s OFF (Australia AS1670 Alert tone)
9.	1111	1000 - 2500Hz, 0.5s/ 0.5s OFF x 3/1.5s OFF (AS1670 Evacuation)
10.		550Hz / 440Hz at 0.5Hz
11.		970Hz, 0.5s ON / 0.5s OFF x 3 / 1.5s OFF (ISO 8201)
12.		2850Hz, 0.5s ON / 0.5s OFF x 3 / 1.5s OFF (ISO 8201)
13.		1200Hz - 500Hz at 1Hz (DIN 33 404)
14.		400Hz
15.		550Hz, 0.7s / 1000Hz, 0.33s
16.		1500Hz - 2700Hz at 3Hz
17.		750Hz
18.	-	2400Hz
19.		660Hz
20.		660Hz 1.8s ON / 1.8s OFF
21.		660Hz 0.15s ON / 0.15s OFF
22.		510Hz, 0.2s / 610Hz, 0.2s
23.		800 / 1000Hz 0.5s each (1Hz)
24.		250Hz - 1200Hz at 12Hz
25.		500Hz - 1200Hz at 0.33Hz
26.		2400Hz - 2900Hz at 9Hz **Default information tone**
27.		2400Hz - 2900Hz at 3Hz
28.	111	500 - 1200Hz, 0.5s/ 0.5s OFF x 3/1.5s OFF (AS1670 Evacuation)
29.		800Hz - 970Hz at 9Hz
30.		800Hz - 970Hz at 3Hz
31.		800Hz, 0.25s ON / 1s OFF
32.		500Hz - 1200Hz, 3.75s / 0.25s OFF (AS2220)

Note: Tones 1, 4, 5 and 7 are EN54-3 approved tones.

Sounder duration

As default, wireless sounders will automatically switch off after 30 minutes to conserve battery life. For continuous uninterrupted operation (until switched off by the control panel), follow the steps below.

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the will display:

Press the <u>solution</u> button until the screen will displays:

Press the will display:

Press the <u>3</u> button until the screen will displays:

Press the button and the screen will display:

Press the <u>solution</u> button until the screen will displays:

Press the button and the screen will display:

View System Status Maintenance/Test Device Options >WZM Settings

Panel Type Sounder Options Device Indicator

Panel Type >Sounder Options Device Indicator

→Default Tone Select Sounder Duration Sounder Activation Pulsed Output

Default Tone Select Sounder Duration Sounder Activation Pulsed Output

⇒30 Mins Auto Off √ Continuous ≎

30 Mins Auto Off ∫ ⇒Continuous ≎

Sounder Duration Set To Continuous

Sounder activation method

As default, wireless sounders will only operate upon activation of the WZM's fire input. For 'immediate mode', so that sounders also operate upon the activation of a wireless device, follow the steps below.

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the **v**button and the screen will display:

Press the 🕦 button until the screen will displays:

Press the \checkmark button and the screen will display:

Press the j button until the screen will displays:

Press the will display:

Press the just button until the screen will displays:

Press the will display:

View System Status Maintenance/Test Device Options ⇒WZM Settings

Panel Type Sounder Options Device Indicator

Panel Type >Sounder Options Device Indicator

⇒Default Tone Select Sounder Duration Sounder Activation Pulsed Output

Default Tone Select Sounder Duration >Sounder Activation Pulsed Output

÷Panel Mode √ Immediate Mode ≎

Panel Mode J *Immediate Mode \$

Sounder Activation Set To Immediate Mode

Pulsed output

As default the PULSED OUTPUT for the fire and the fault relays is set to latched. Upon an activation, the relay will remain latched in alarm until the WZM is reset. To alternatively pulse into alarm for a pre-defined period of time (range from 5-60 seconds) before automatically clearing, follow the steps below.

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the will display:

Press the <u>3</u> button until the screen will displays:

Press the button and the screen will display:

Press the j button until the screen will displays:

Press the will display:

Press the ① and ③ buttons, until the screen displays the required relay type: In this example, the fault relay has been chosen.

View System Status Maintenance/Test Device Options >WZM Settings

Panel TypeSounder OptionsDevice Indicator

Panel Type ÷Sounder Options Device Indicator

*Default Tone Select Sounder Duration Sounder Activation Pulsed Output

Default Tone Select Sounder Duration Sounder Activation >Pulsed Output

⇒Fire Relay- LATCH Fault Relay- LATCH ≎

Fire Relay- LATCH *Fault Relay- LATCH Press the \checkmark button and the screen will display:

Press the 1 and 3 buttons, until the required time is displayed: In this example, 20 seconds has been chosen.

Press the **v** button and the screen will display:

Note: the same options are available for the fire and fault relays.





Fire Relay- LATCH →Fault Relay- 15

Device indicator operation

This feature is only available when the 'Panel Type' is set to 'Addressable'. As default, the device LED indicators are switched 'Off When Silenced' (upon receipt of a silence command signal from the control panel). Alternatively 'Off When Reset' can be selected (where the device LED indicators switch off upon the receipt of a reset command signal from the control panel, by following the steps below.

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the will display:

Press the <u>3</u> button until the screen will displays:

Press the will display:

Press the <u>solution</u> button until the screen will displays:

Press the will display:

View System Status Maintenance/Test Device Options >WZM Settinss

Panel Type Sounder Options Device Indicator

Panel Type Sounder Options Device Indicator

→Off When Silenced √ Off When Reset ≎

Off When Silenced / +Off When Reset

Fire Status Turned Off When Reset

Device signal levels

From access level 3 (as previously shown on page 16), press the 3 button until the screen displays:

Press the will display:

Press the <u>3</u> button until the screen displays:

Press the \checkmark button and the screen will display:

Press the 1 & 3 buttons to highlight the required signal category.

Press the \checkmark button to select the required category and the device signals can be viewed, by pressing the \checkmark buttons.

View System Status Maintenance/Test Device Options WZM Settings ©

*Sounder.O/P Test Device Sisnal List Device Battery List Edit Service Code

Sounder.O/P Test *Device Sisnal List Device Battery List Edit Service Code

Good Signal 08 Low Signal 00 No Signal 00 More>

⇒Good Signal 08 Low Signal 00 No Signal 00 More>

Z01 A08 80dB

Dual Detector

First Floor Landins

G000 Sisnal ______

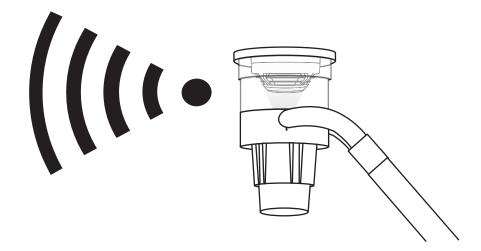


Note: It is important that all devices have GOOD signal levels to ensure the maximum robustness of wireless signalling.

If a device does not achieve a good signal level, for further guidance refer to the 'How to improve device signal levels' section within the SmartCell WZM Programming Guide (MK067).

Test devices

Every device should be function tested, to ensure correct functionality.



- Smoke detectors should be tested using a smoke detector tester and in accordance with local codes of practice.
- Heat detectors should be tested using a heat detector tester and in accordance with local codes of practice.
- Call Points should be tested in accordance with local codes of practice.
- Sounder operation should also be tested in accordance with local codes of practice.
- Input / Output devices should also be tested in conjunction with associated 3rd party equipment and in accordance with local codes of practice.

See overleaf for additional WZM testing features.

Congratulations

Your SmartCell WZM should now be successfully installed.



Notes

SmartCell

www.mysmartcell.co.uk

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.