EMS

FireCellWDC
Wireless Door Control

Installation Guide

FireCellWDC
Wireless Door Control
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Contents

Ordering information

| Part no	Product description
FC-60-2000	FireCell Wireless Door Control (Black)
FC-60-2010	FireCell Wireless Door Control (White)

Pre installation

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

- Ensure that the device is installed as per the site survey.

- Ensure that the device is fitted to the side of the door that shuts against the door frame.

- The supplied ESD protection label must be fitted when installing the Wireless Door Control (WDC) on metal kick plates or uneven surfaces.

- DO NOT press the log on button on a pre-programmed device, as this will cause communication with the control panel to be lost. Should this happen, delete the device from the system and add it back on.

- Before installing the device, ensure that the fire door is suitable e.g. self closing, has a flat surface to fix to and has appropriate clearance under the door to accommodate the floor plate.

- Any door closing devices used in conjunction with the WDC must conform to EN 1154.
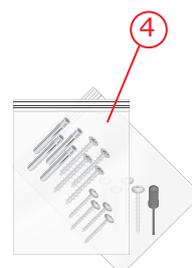
Components
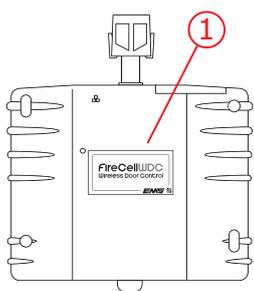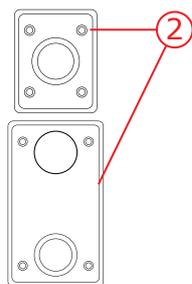
① FireCell WDC ② Small & large floor plates ③ Fixing template (MK255) ④ Fixings ⑤ ESD protection label

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Equipment familiarisation

Indication LED

Fixing position

Log on button

Fixing position

Plunger

Battery compartment

Fixing position

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Fixing position

Ferrule
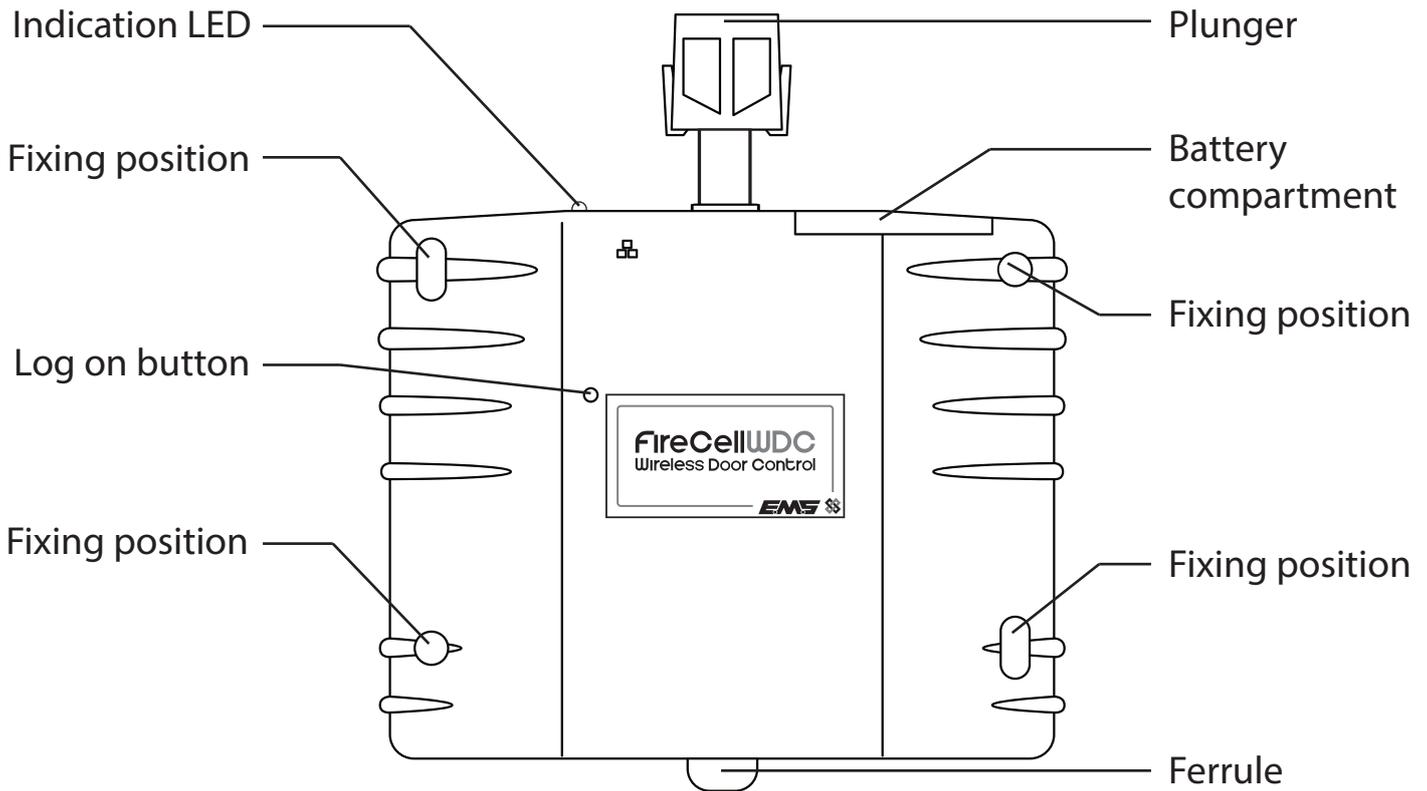
Insert batteries

■ When fitting / replacing batteries; observe correct polarity, using only specified batteries.

⚠ Note; upon first power up the device will initiate a startup sequence, denoted by a series of low pitched beeps and motor operations. This sequence will take approximately 15 seconds and concludes with three low pitched beeps.

Should the sequence close with a mix of high and low pitched beeps, refer to page 13.

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+ −
+ −
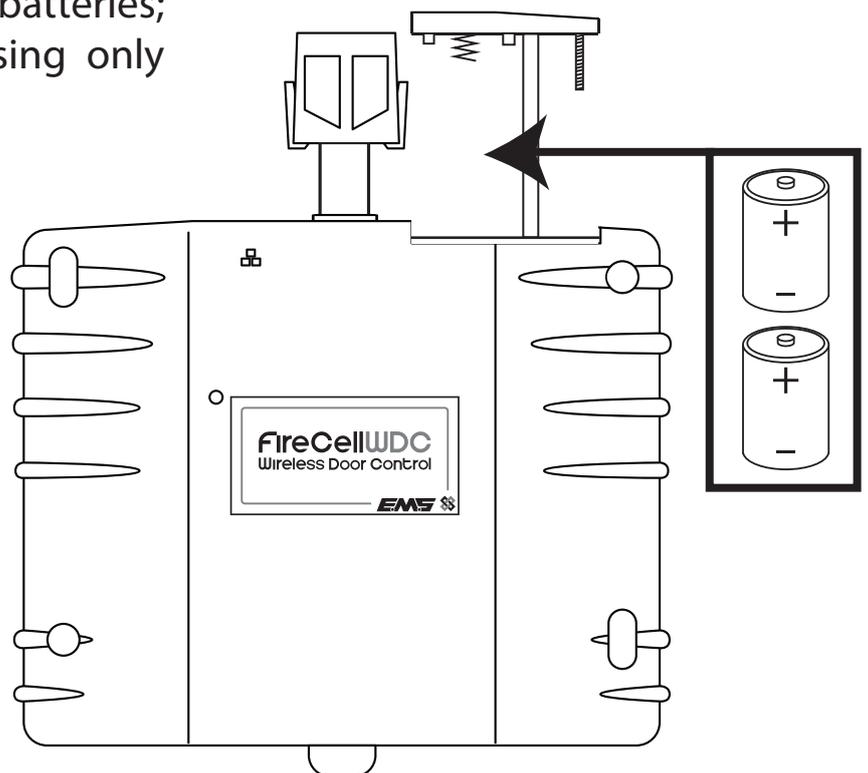
Add to system - *unprogrammed systems only*

⚠️ Skip this step If the device has been supplied as part of a pre-programmed system, as this will cause communication with the control panel to be lost. Should this happen, delete the device from the system and add it back on.

The device's loop address is configured within the menu structure of the radio hub. It is recommended to configure the device to the system prior to installation.

Note; devices can alternatively be added to the system after installation. If this method is to be taken, it is recommended to note the devices ident number at this stage. Skip this section and refer to the 'Post Installation Configuration' section on page 10 for details on the device's ident location.

Note; if programming the FireCell WDC to a Fusion Loop Module, refer to the Fusion Loop Module Engineers Guide (TSD062) for programming details.

To add devices by log on (pre installation);

From Front Display 🔄 **Add New Device** *Select Desired* **RCC 01** 🔄 **Set Loop 1** 🔄 **Addr 003** 🔄 **Add By Log On** 🔄 **Press Dev Log On** *'press the devices log on button, followed by* **Add Dev 03456 Y?** 🔄 **New Addr L1 A003.**

🔳 BACK *To Exit*

The device has now been added to the Radio Hub and should be installed in its location. For further details, refer to the programming manual (MK98) for full programming information.

Free to download from www.emsgroup.co.uk

Note: the device can also be programmed utilising the control panel's cause and effects, as part of the buildings evacuation plan.

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Assign device

Newly added devices must now be assigned to the system.

From Unassigned Dev ↻ **Assign Device** ↻ **Assign All** ↻ **Dev 000 of 001**

changing to **Done 001 of 001** *(once complete)*
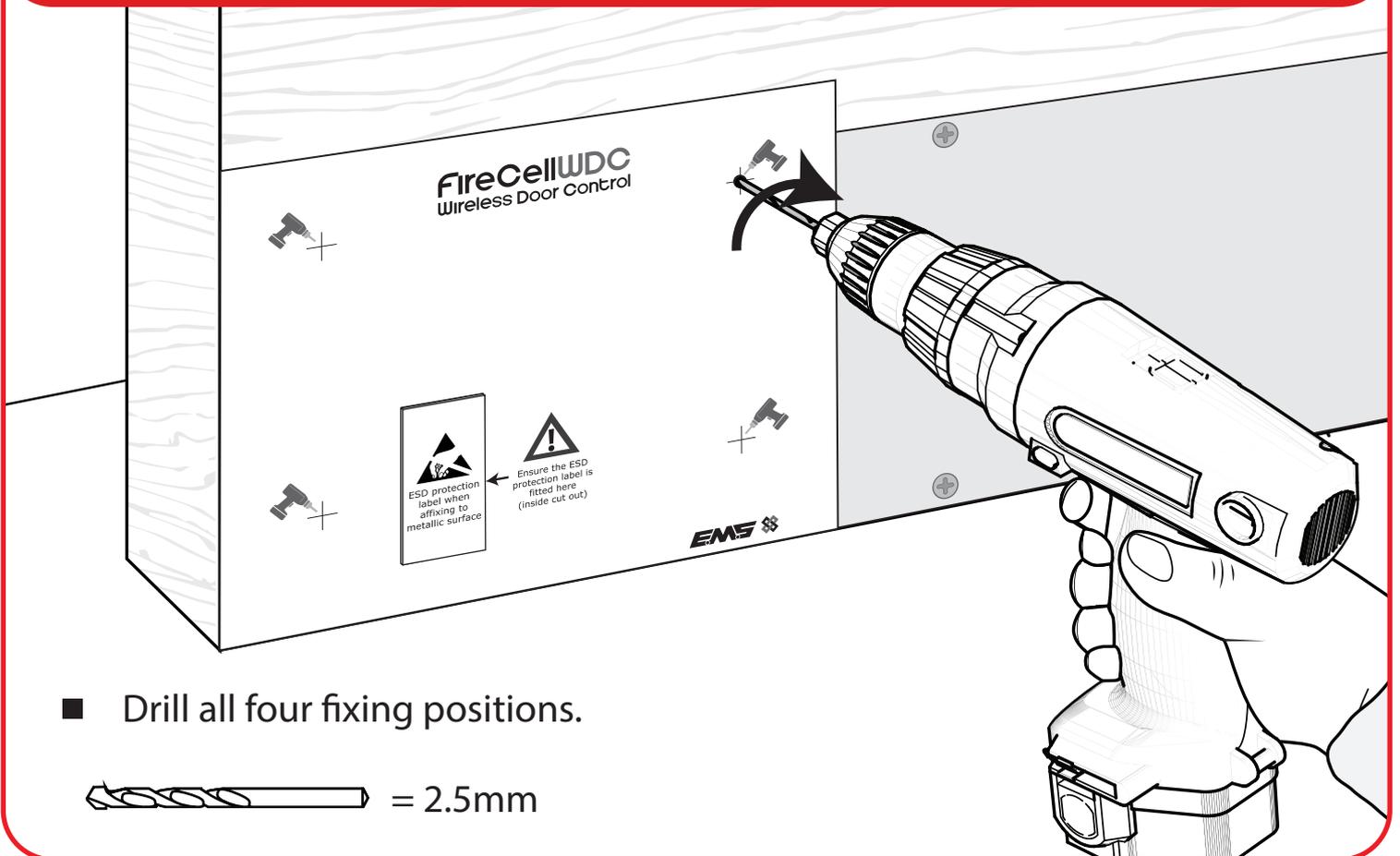
[BACK] *To Exit*

⚠ **Note: the device must now also be added and configured on the control panel. Refer to the FireCell Programming Guide (MK98) for details.**

Position template against door

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ESD protection label when affixing to metallic surface

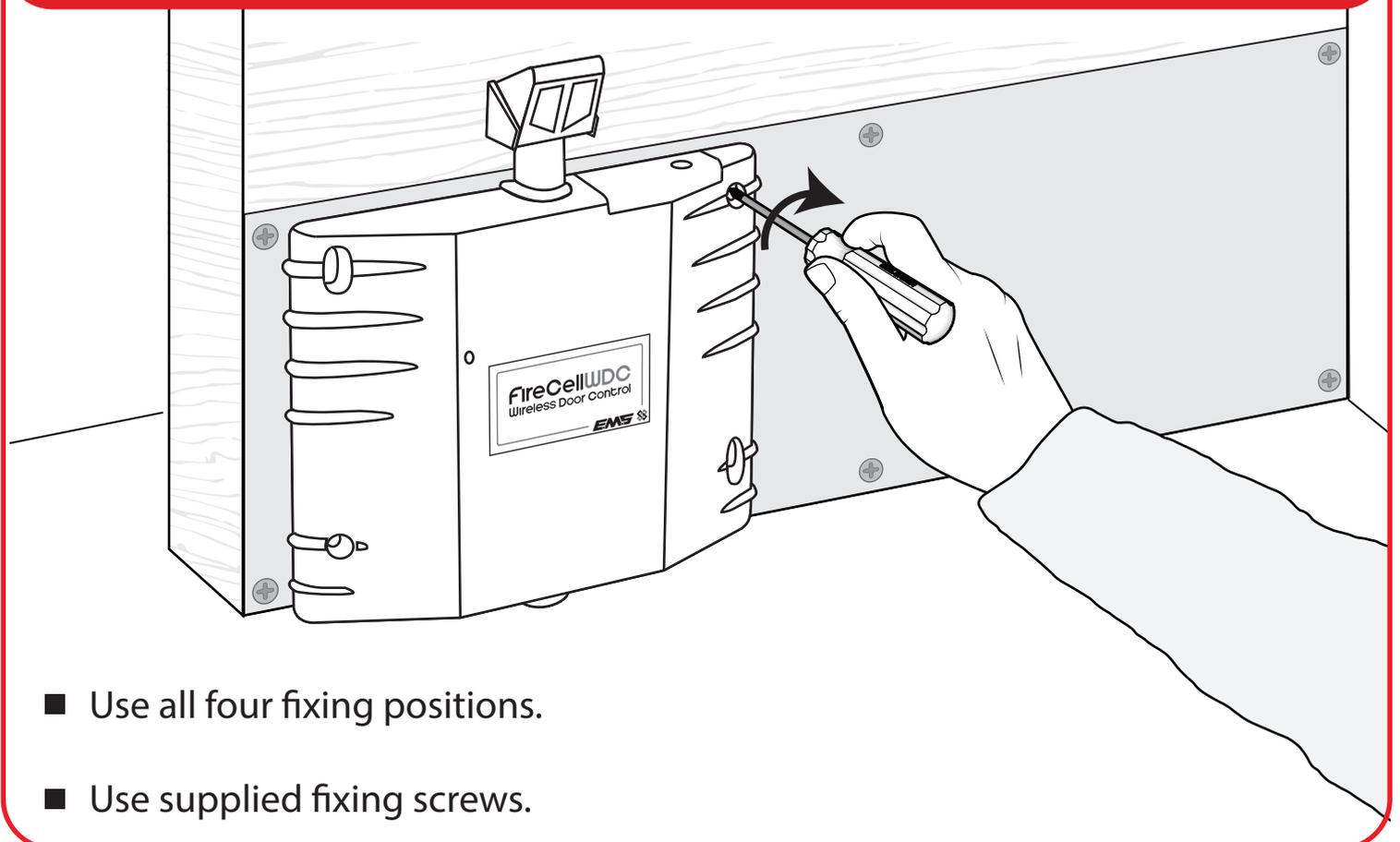⚠ Ensure the ESD protection label is fitted here (inside cut out)

⚠ **If the device is to be fitted to a metal surface, e.g. a metal kick plate, the ESD protection label must be fitted. Simply affix the label inside the fixing template's cut out, on to the metal surface.**
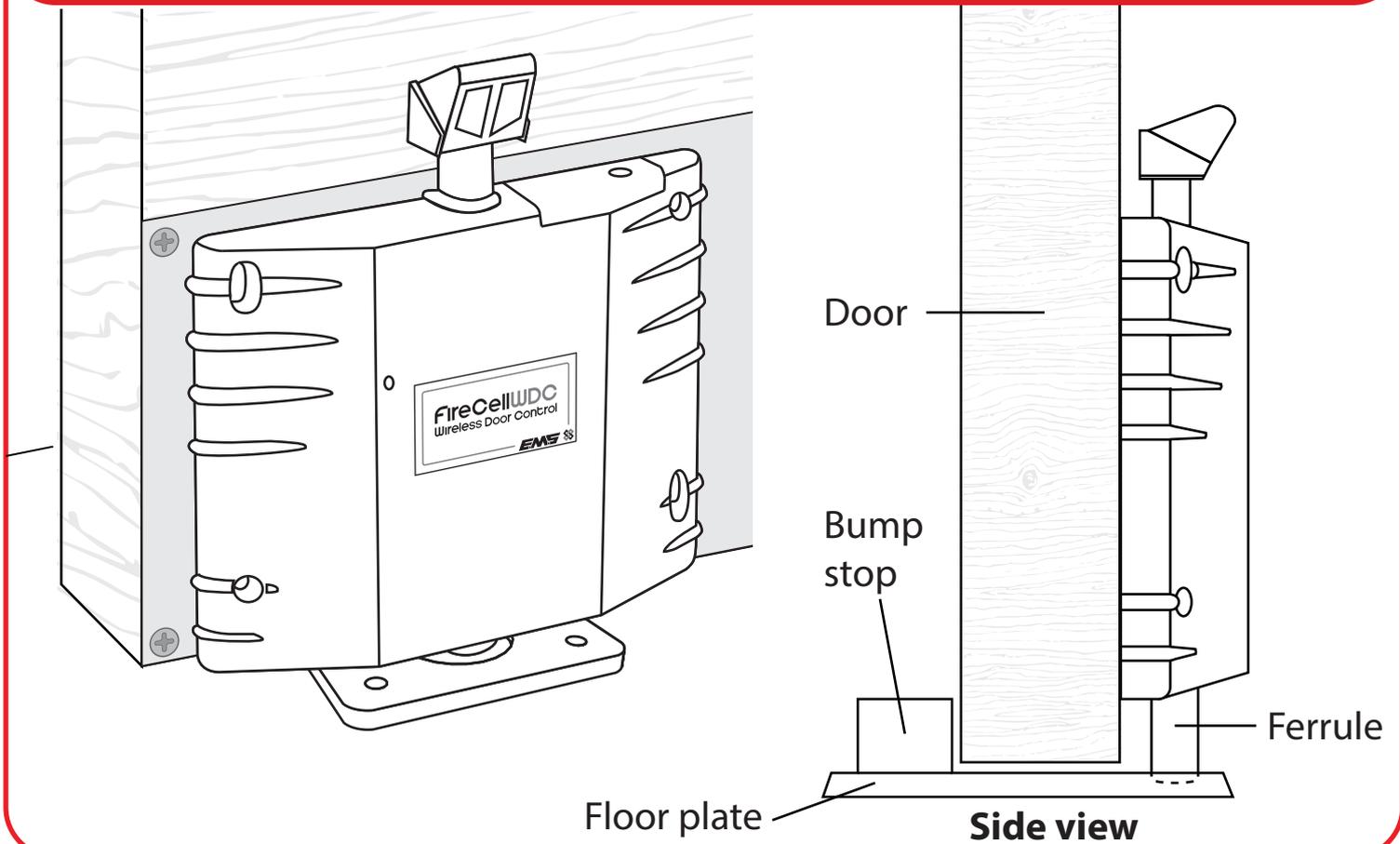
Drill fixing positions

■ Drill all four fixing positions.

 = 2.5mm

Fix unit to door

■ Use all four fixing positions.

■ Use supplied fixing screws.

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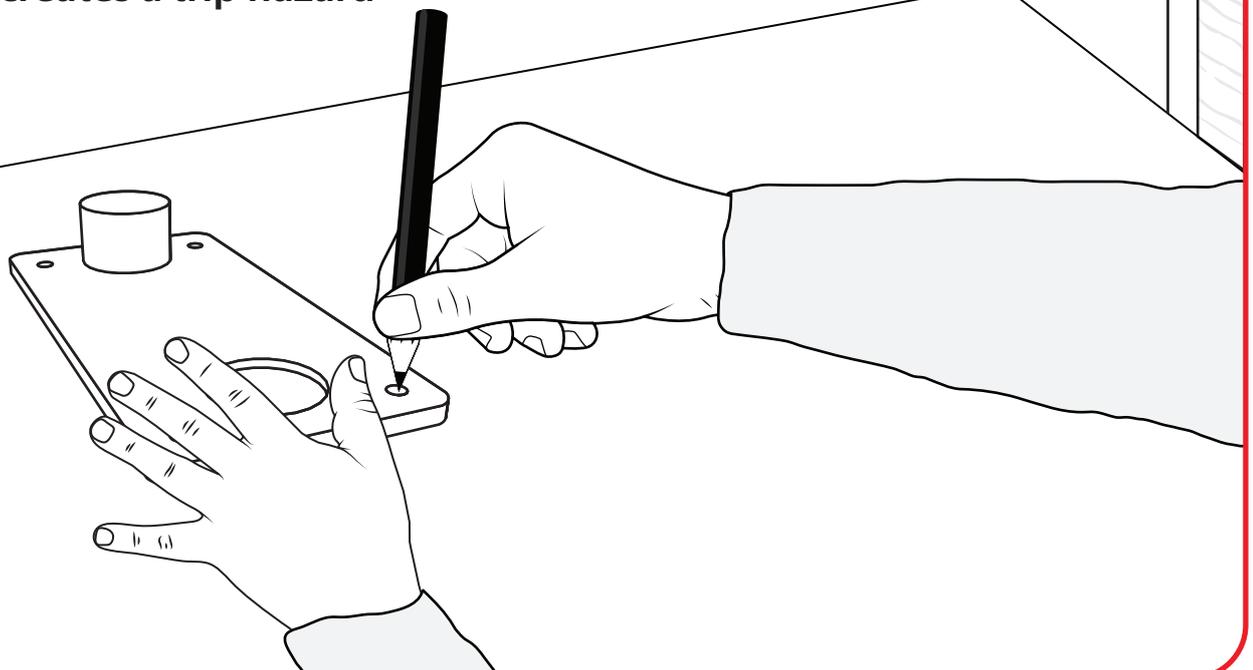# Position floor plate

Door

Bump stop

Floor plate

Ferrule

Side view

Mark floor plate fixing positions

■ Mark all four fixing positions.

⚠ **Use small floor plate, if bumpstop creates a trip hazard**

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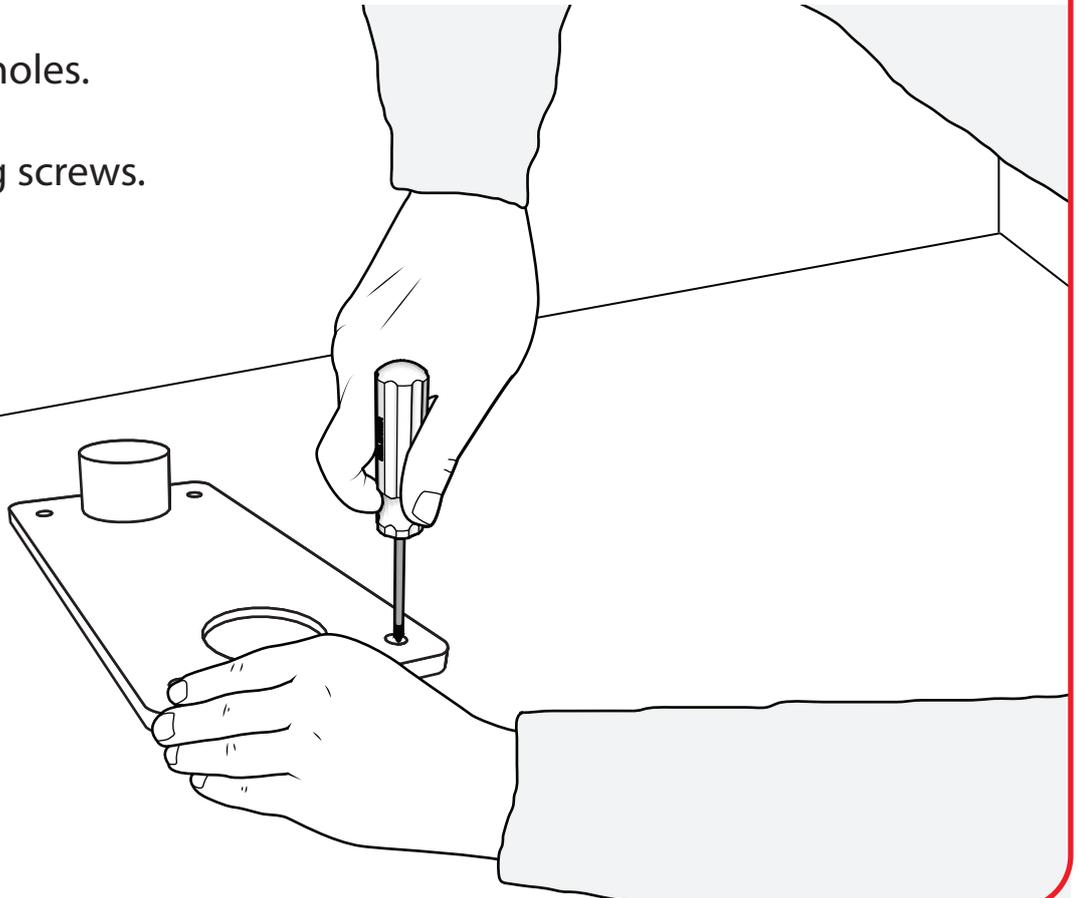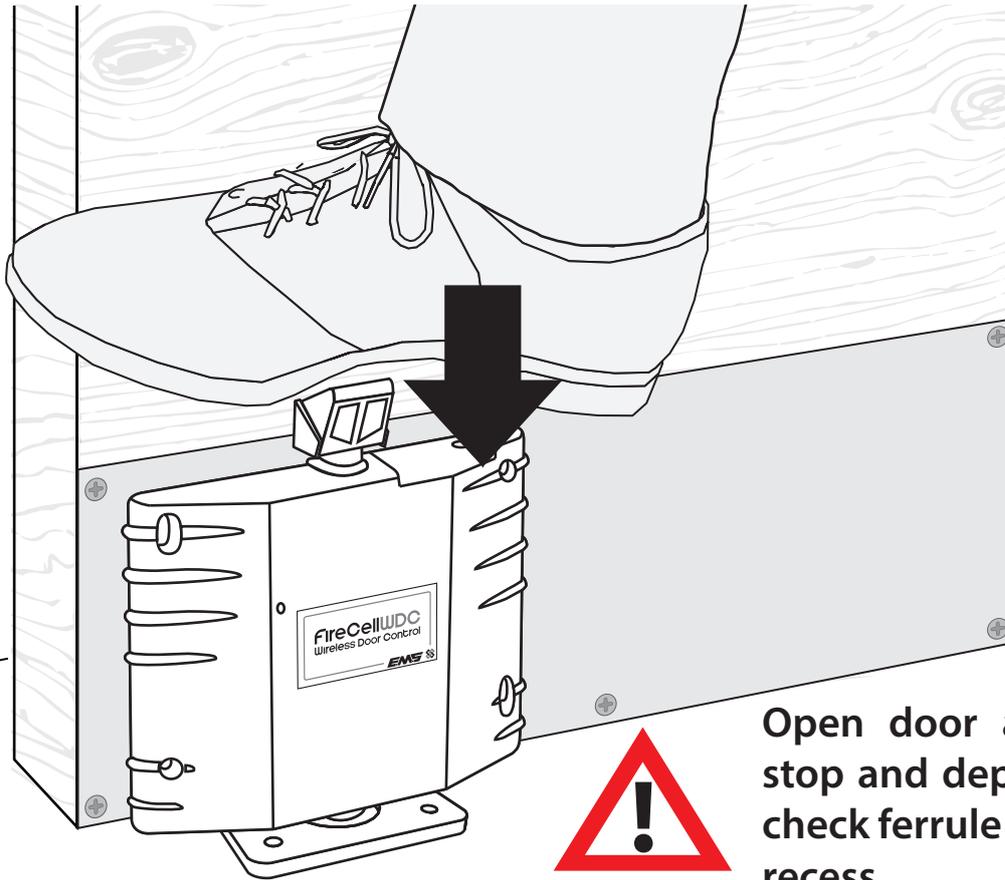
Drill floor plate fixing positions
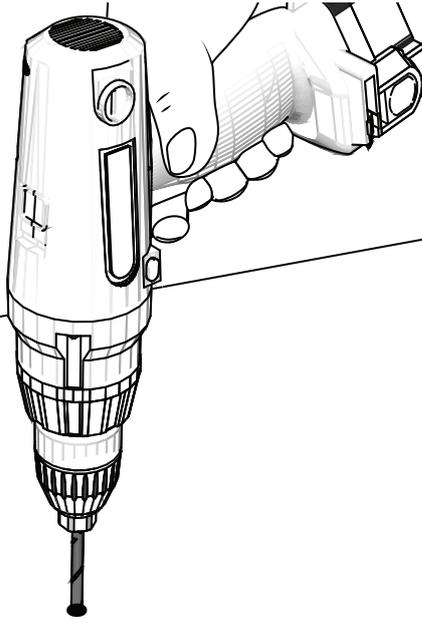
= 6 mm

Before drilling, check locations of water pipes, gas pipes & electrical cables

Fix floor plate to floor

- Use all four fixing holes.

- Use supplied fixing screws.

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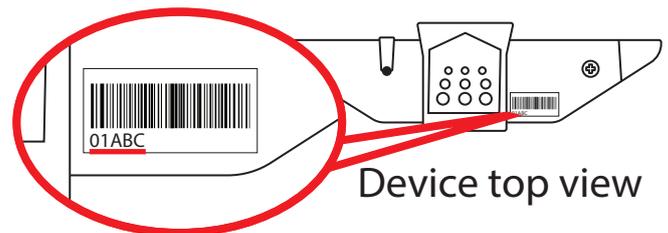
Open fire door & depress plunger

⚠️ **Open door against bump stop and depress plunger - check ferrule fits neatly into recess**

Post installation configuration

⚠️ **Skip this step if the device has already been configured to the system**

Ensure the device's ident number has been noted. The device's ident is located at the top of the device as shown:

01ABC

Device top view

To add devices by ident (post installation);

From Front Display 🔄 **Add New Device** *Select Desired* **RCC 01** 🔄 **Set Loop 1** 🔄 **Addr 003** 🔄 **Add By Ident** 🔄 **Add Dev 01ABC Y?** *'Enter the Device's ident* 🔄 *'Enter the device type* 🔄 Input Output Device 🔄 **New Addr L1 A003** 🔄

🔳 *Exit*
BACK

The device must now be assigned to the system. Refer to the ' Assign Devices' section on page 6 for details.

Test device
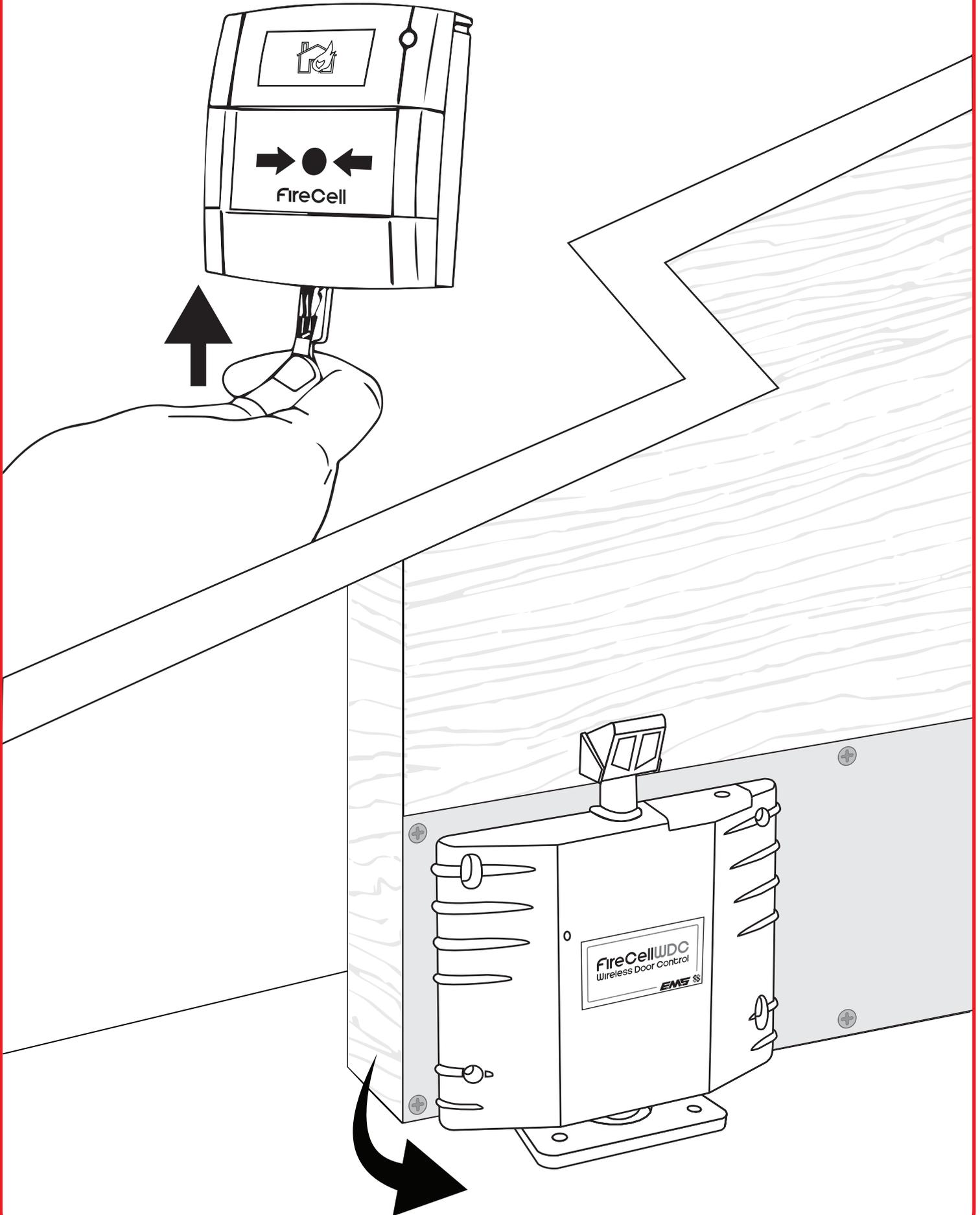
Troubleshooting

In the rare event of an issue with the device's operation, refer to the points below:

Device not releasing upon a fire alarm condition?

- Check that the device is added correctly to the system and that it is fault free at the FireCell radio hub.

- Check that the door closes freely when closed manually.

- Check that the plunger has a minimum of 10mm clearance between the ferrule and the floor / floor plate.

- Check that the WDC's output properties are set correctly within the control panel programming.

Why does the fire door not close freely?

- Check that the ferrule is not worn or damaged. Replace as necessary.

- Check that the plunger has a minimum of 10mm clearance between the ferrule and the floor / floor plate.

Device not holding the door in an open position

- Check that the plunger is depressed fully.

- Check that the device is added correctly to the system and fault free at the FireCell radio hub.

- Check that the device is positioned low enough for a good connection between the ferrule and the floor plate. The optimum plunger movement is 10 - 15 mm.

Device in tamper fault?

- Check that the device is fixed correctly to the door.

- Check that the surface is flat and that the tamper switch is engaging correctly, when the device is fixed to the door.

Battery fault / device not powered?

- Check the polarity and the voltage of the batteries.

- Check that the battery cover is fitted correctly.

- Do NOT Press the log on button on a pre-programmed device, as this will cause communication with the control panel to be lost. Should this happen, delete the device from the system and add it back on.

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Device tone and flash indication

In addition to fault reporting at the control panel, the FireCell WDC has various beep and flash sequences to indicate a number of conditions.

During device startup sequence / motor operation

Beep sequence	Flash sequence	Indicative meaning	Action required
Low-Low-Low	None	Startup complete	None
High-High-Low *(repeated until resolved)*	Red-Red *(on first two beeps only)*	Motor operation fail*	Remove and re-insert batteries
High-High-High-High-Low-Low-Low-Low	Red-Red-Red-Red *(on first four beeps only)*	Battery pack 2 fail *(non-serviceable part)*	Remove and re-insert batteries *(If fault persists, return to manufacturer)*
None	Red-Green	Battery pack 1 low / incorrectly inserted *(2x C batteries)*	Replace / remove and re-insert batteries *(as appropriate)*

During standard operation

Beep sequence	Flash sequence	Indicative meaning	Action required
Low-Low-High *(repeated until the plunger releases)*	Red *(on low beeps only)*	Plunger fail	Check for obstructions to the plunger
High-Low-Low-Low (repeated until resolved)	Red *(on first sequence only)*	Battery pack 2 fail *(non-serviceable part)*	Remove and re-insert batteries *(If fault persists, return to manufacturer)*
High-Low *(seven times, then door releases)*	Red *(on first beep in sequence only)*	Door is about to close†	Move away from the doorway

* Additional notification will be reported at the control panel as an analogue value 4 fault - Tamper/ Input Fault (short or open circuit).

† Door closing can be as a result of many factors such as a fire condition, a loss of communication or a battery critical condition. Refer to the control panel for details.

Specification

Operating temperature	-10 ℃ to 55 ℃
Storage temperature	5 ℃ to 30 ℃
Humidity	Up to 95% non-condensing
Supply	2x C Alkaline (Panasonic LR14AD Powerline / Varta 4014 Industrial)

CAUTION!
Fitting of an incorrect battery type invalidates the product certification and may result in poor performance.

Supply voltage	2.22 to 3.3 VDC ⎓
Current consumption	60 µA
Operating frequency	868 MHz
Output transmitter power	Auto adjusting 0 - 14 dBm (0 - 25 mW)
Signalling protocol	X2
Dimensions (W x H x D)	195 mm x 205 mm x 45 mm
Weight	0.5 kg
Location	Type A: For indoor use
Max. hold open power size	7
Max. door leaf width	1600 mm
Max. test door mass	160 kg
Max. overload test drop weight	36 kg
Max. test door friction	0.8 Nm
Min. angle between door open and closed positions	66 °

Note: FireCell WDC is not for use on metal doors.

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Regulatory information

Manufacturer	EMS Ltd. Technology House, Herne Bay, Kent, CT6 8JZ, United Kingdom
Year of manufacture	See devices serial number label
Certification	$C\epsilon$ **19**
Certification body	**0905**
CPR certificate DOP	0359-CPR-00648
Approved to	BS EN1155:1997. Incorporating Amendment No. 1 and Corrigendum Nos. 1, 2 and 3. BS 7273-4:2007. Code of practice for the operation of fire protection measures – Part 4: Actuation of release mechanisms for doors. (Category B) EN54-25:2008. Incorporating corrigenda September 2010 and March 2012. Fire detection and fire alarm systems. Part 25: Components using radio links.
European Union directives	EMS declares that the radio equipment type FireCell WDC is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.emsgroup.co.uk
	2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see www.recyclethis.info Dispose of your batteries in an environmentally friendly manner according to your local regulations.

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