FireCell

REMOTE DIPOLE AERIAL

INSTALLATION GUIDE

MK293 Iss 3 21/08/2018 AJM

Ordering information

Part No	Product Description
FC-868-A03	VERTICALLY MOUNTED DIPOLE AERIAL C/W 3M COAX
FC-868-D03	W/PROOF VERTICALLY MOUNTED DIPOLE AERIAL C/W 3M COAX

Pre installation

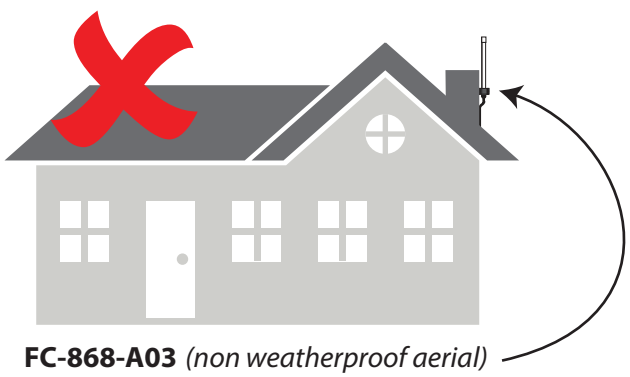
Installation must conform to applicable local installation codes and should only be installed by a fully trained competent person.

- Ensure the remote aerial is installed as per the site survey, if applicable.
- Remote aerials are suitable for connection to Radio Hubs and Radio Cluster Communicators (RCCs) with remote aerial facility only.
- Remote aerials can be fitted directly to the wall using the supplied fixing bracket, or can also be fitted in conjunction with a 7235 Pole Mounting Kit.
- Remote aerials are monitored with an end of line 47k resistor fitted.

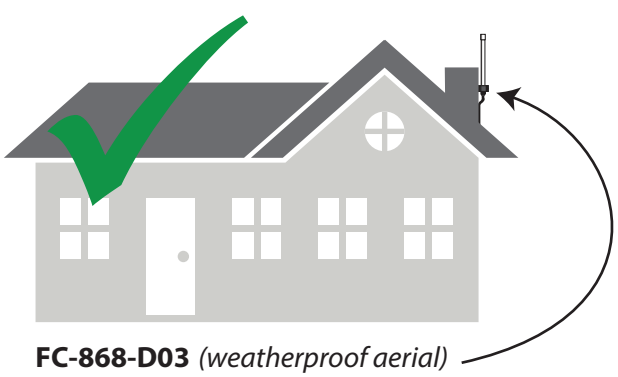
Installation guidelines

For optimum wireless performance,the following must be observed:

- DO NOT fit a FC-868-AO3 (non-weatherproof aerial) externally.



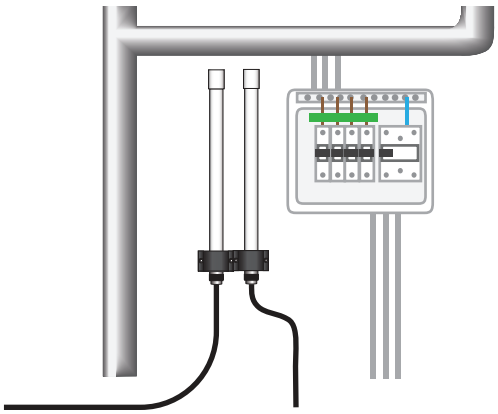
FC-868-A03 *(non weatherproof aerial)*

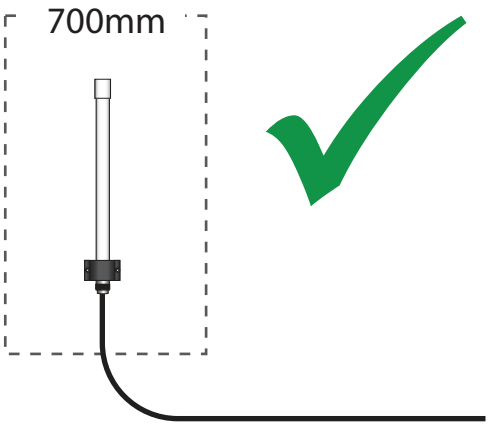


FC-868-D03 *(weatherproof aerial)*

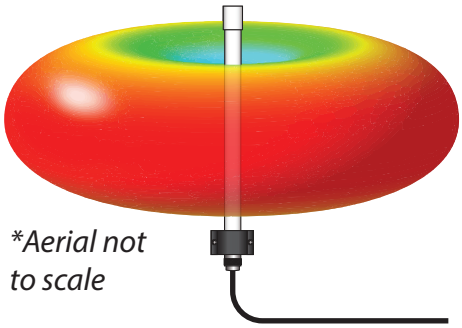
Installation guidelines - *continued*

- Remote aerials MUST NOT be installed within 700mm of metal, electrical equipment, or other remote aerials.





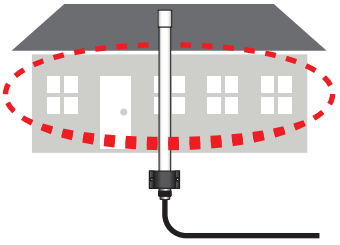
- The aerial's orientation should also be considered, since the remote dipole aerial provides a radiation pattern as shown below.



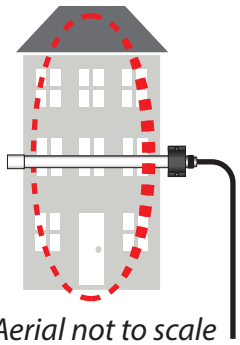
*Aerial not to scale

This is a theoretical illustration, as real world situations i.e. walls/materials etc. will add deviations.

Therefore, a single storey building for example, may benefit most from a vertically mounted aerial.



*Aerial not to scale



*Aerial not to scale

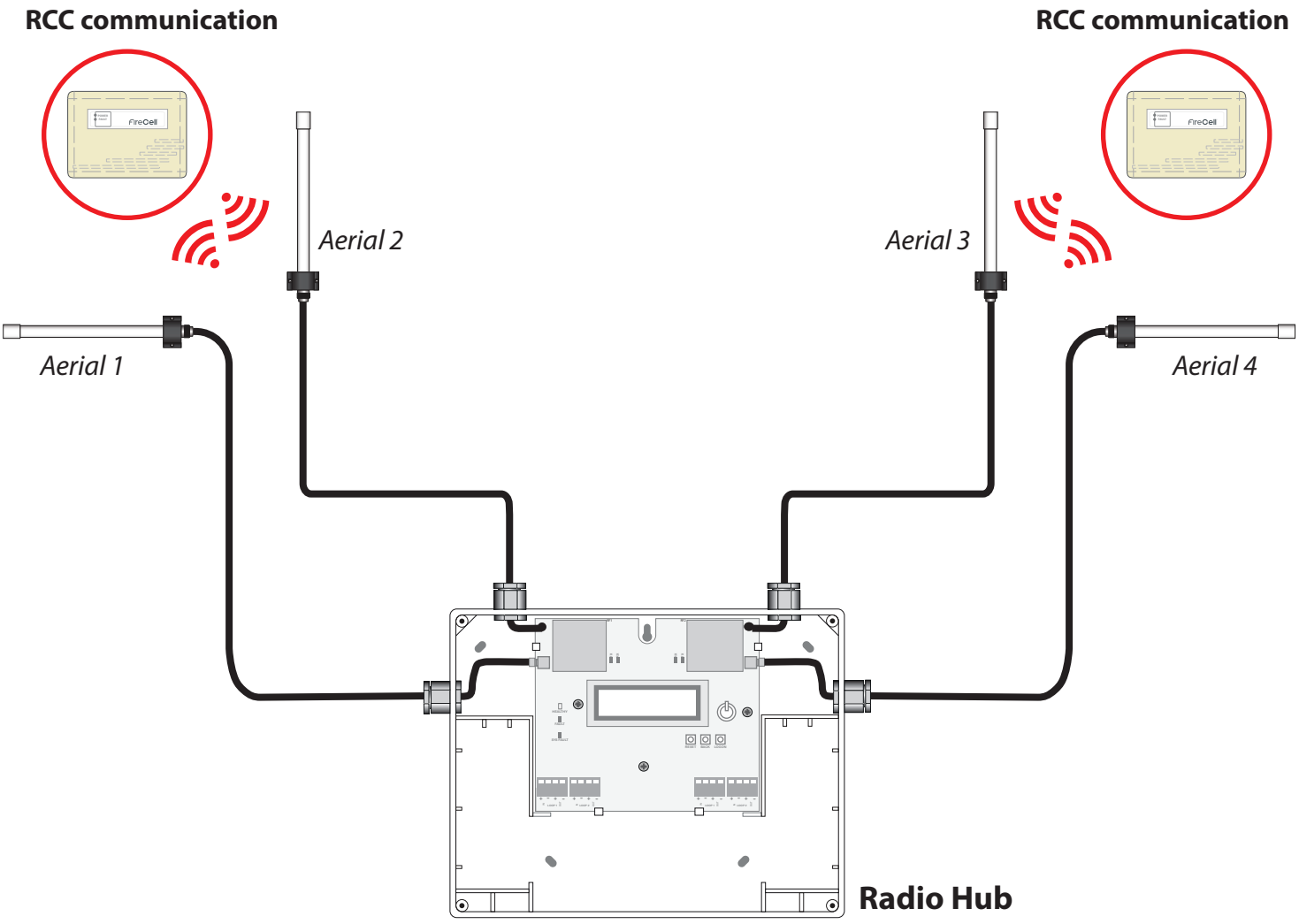
A tall narrow building however, may benefit most from a horizontally mounted aerial.

Note: For best practice, it is recommended to use both orientations, for optimum 360˚ coverage. *See overleaf for further details.*

Connecting and routing cables - *Radio Hub*

The Radio Hub has four aerial positions. Since both sides are used for the network communication with RCCs, it is best practice to fit aerials on both sides of the Radio Hub, using aerials 1 and 4, or 2 and 3, for optimum robustness.

Fitting all four aerials in the orientations shown in most scenarios will provide optimum 360˚ coverage, with full back-up.



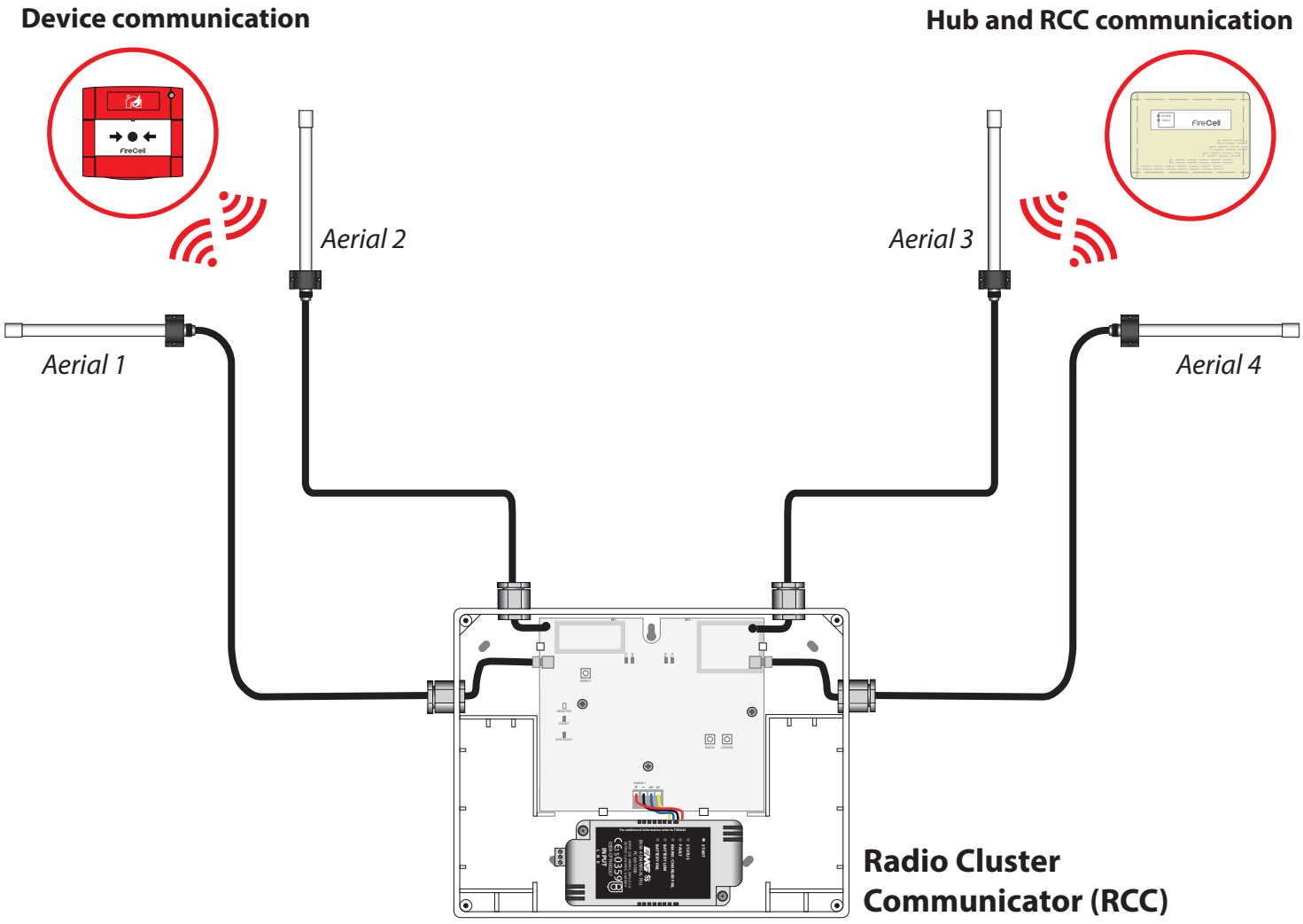
Note: aerial cabling must enter the enclosure via the nearest aerial cable entry points, as shown above.

Note: refer to the ' Remove cable entry points' section, prior to undertaking any cable routing.

Connecting and routing cables - *RCC*

The RCC uses aerial positions 1 and 2 for device communication. Although it is possible to use just one aerial, it is best practice in most scenarios to fit both aerials in the orientations shown below, for optimum 360˚ coverage.

Aerial positions 3 and 4 are used for communication with the Hub and RCCs. Although it is possible to use just one aerial, it is best practice in most scenarios to fit both aerials in the orientations shown below, for optimum 360˚ coverage.

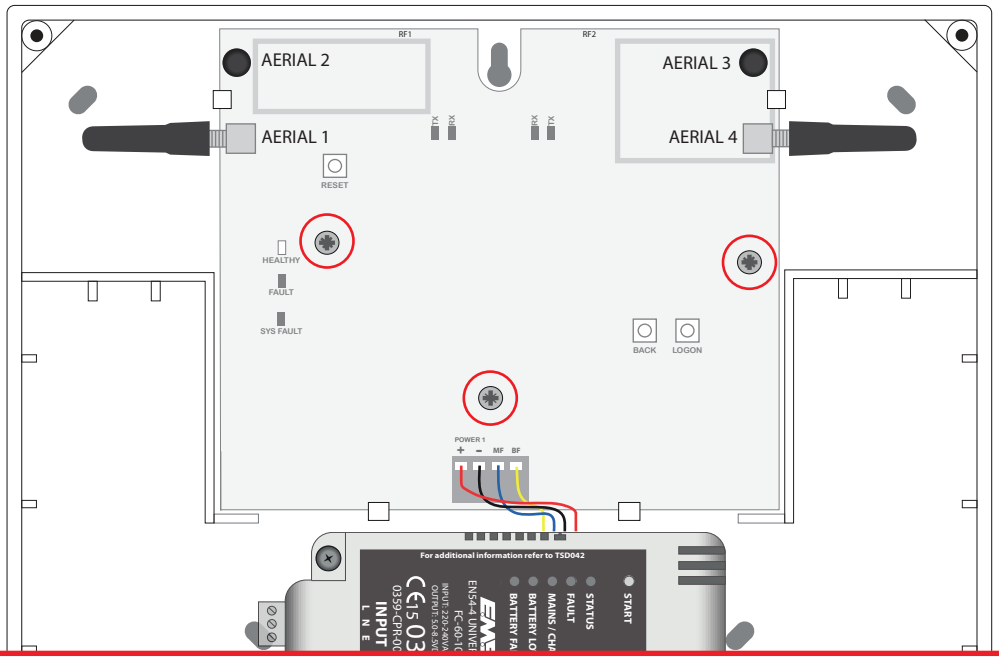


Note: aerial cabling must enter the enclosure via the nearest aerial cable entry points, as shown above.

Note: refer to the ' Remove cable entry points' section, prior to undertaking any cable routing.

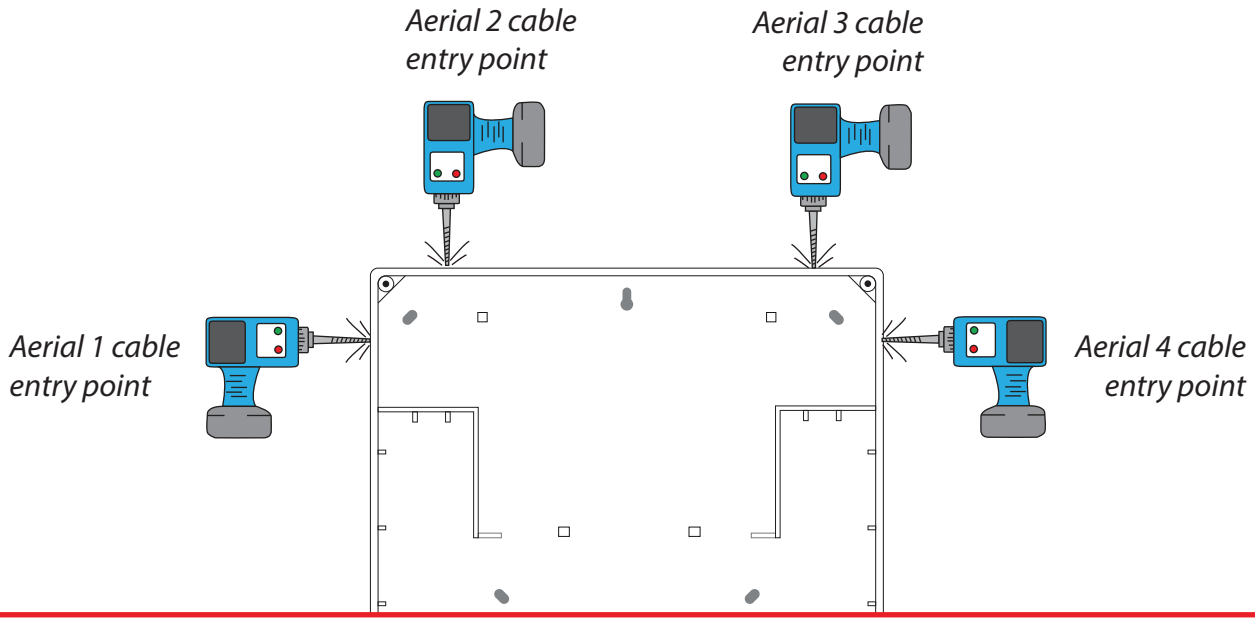
Optional PCB removal

Care must be taken when removing aerial cable entry points, to avoid damaging the PCB. If unsure, the PCB can be released by removing the 3 circled retaining screws, before unclipping the PCB.



Remove aerial cable entry points

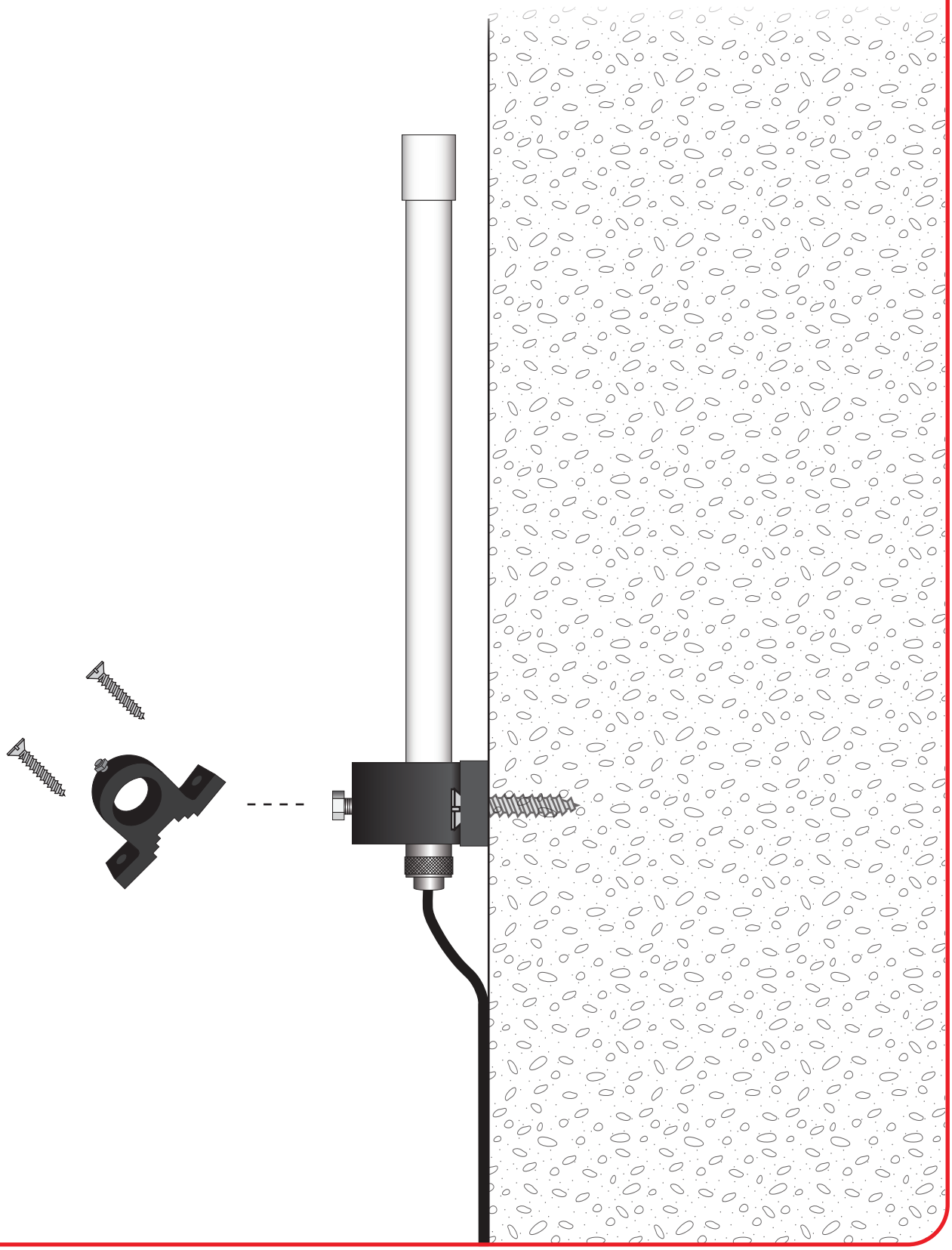
Drill the aerial cable entry points as necessary, using the appropriate entry points, previously highlighted for optimum wireless performance.



Fix aerials to the wall - *direct wall mounting*

Note: if mounting in conjunction with a 7325 pole mounting kit, skip to the next step.

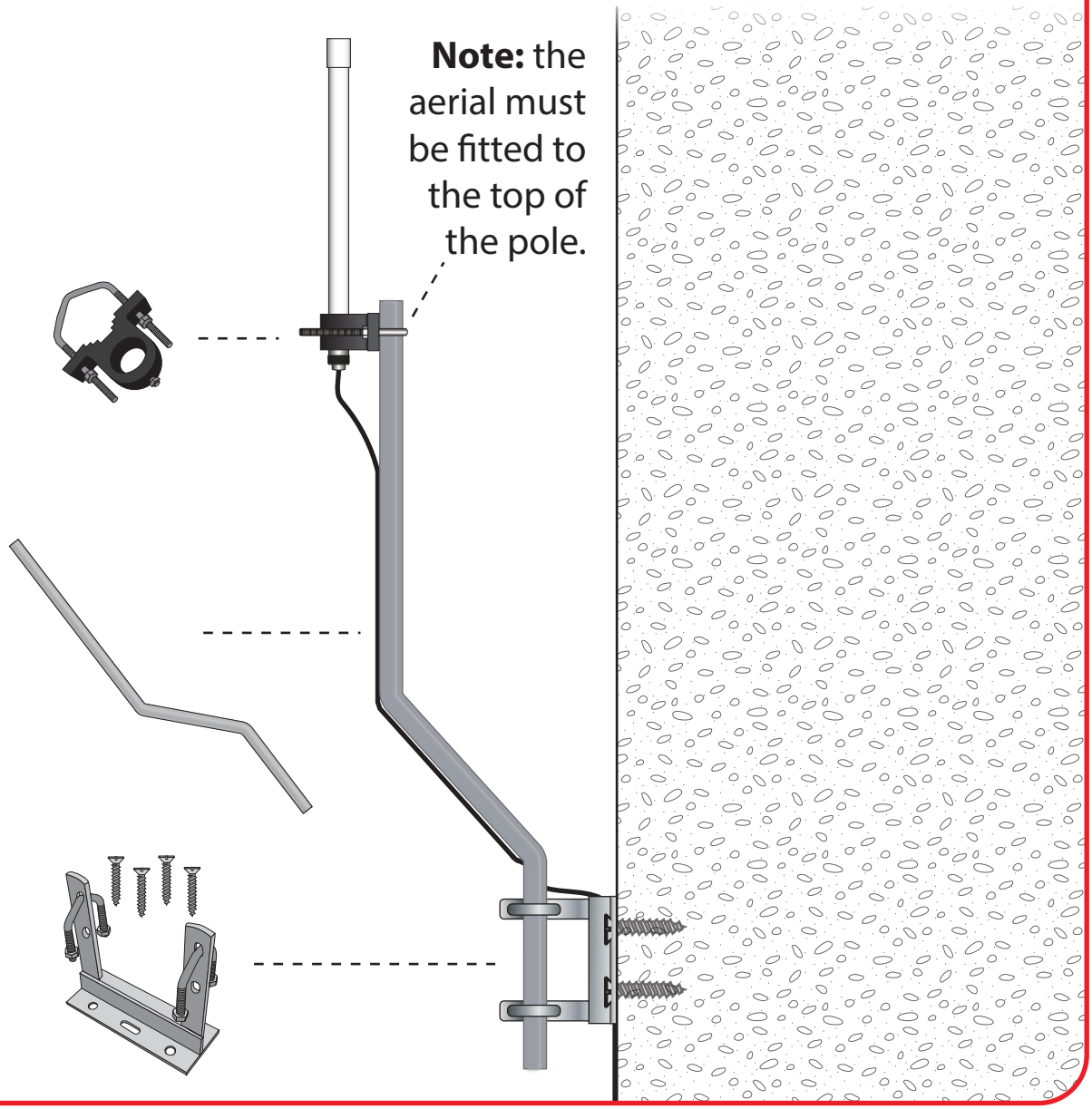
If mounting directly to the wall, whether vertically or horizontally, the aerial should be fitted as shown below:



Fix aerials to the wall - *with a pole mounting kit*

If mounting an aerial vertically in conjunction with a 7325 pole mounting kit, the aerial should be fitted as shown below:

Note: aerials for horizontal installation, may only be mounted directly to the wall, as pole mounting is not available in this orientation.



www.emsgroup.co.uk
+44 (0) 1227 369570
enquiries@emsgroup.co.uk

Fire Industry Association

ISO 9001 • ISO 14001 CERTIFIED COMPANY TM Intertek

UKAS MANAGEMENT SYSTEMS 014

MK293 Iss 3 21/08/2018 AJM