FireCell

REMOTE DIPOLE AERIAL
SETUP GUIDE

MK293-99 (Issue 5) 31/03/2025 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

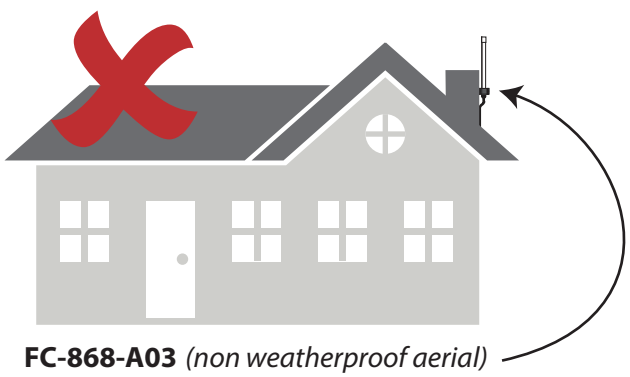
Installation must conform to applicable local installation codes and should only be installed by a fully trained competent person.

- 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.

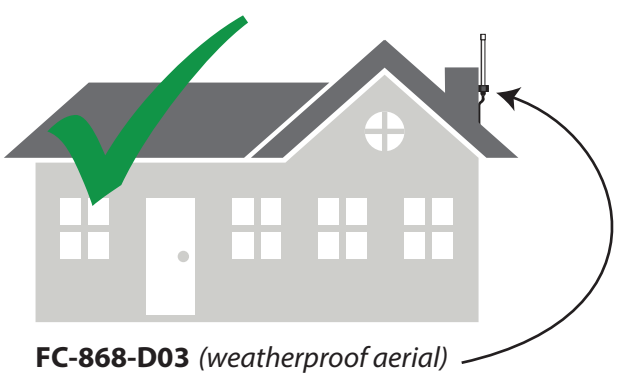
Installation guidelines

For optimum wireless performance, the following must be observed:

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



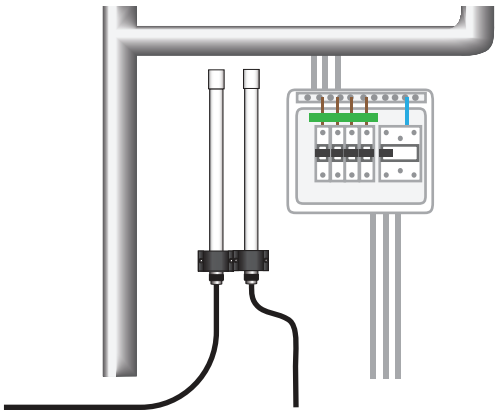
FC-868-A03 *(non weatherproof aerial)*

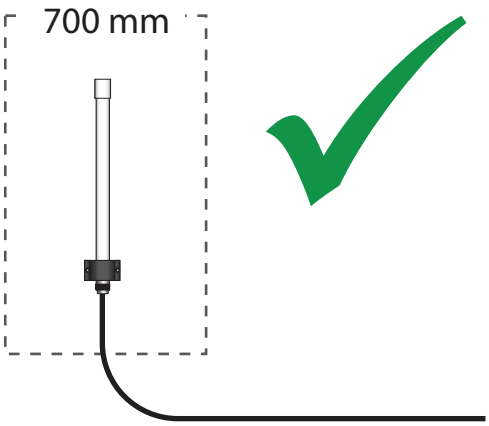


FC-868-D03 *(weatherproof aerial)*

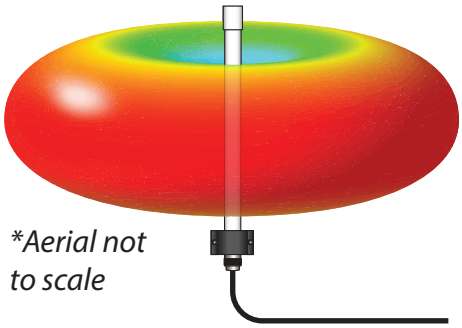
Installation guidelines - *continued*

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





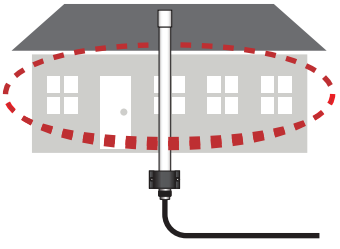
- The aerial's orientation should also be considered, since the remote dipole aerial provides a radiation pattern as shown below.



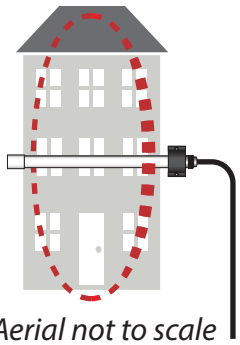
*Aerial not to scale

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

For example a single storey building may benefit most from a vertically mounted aerial.



*Aerial not to scale



*Aerial not to scale

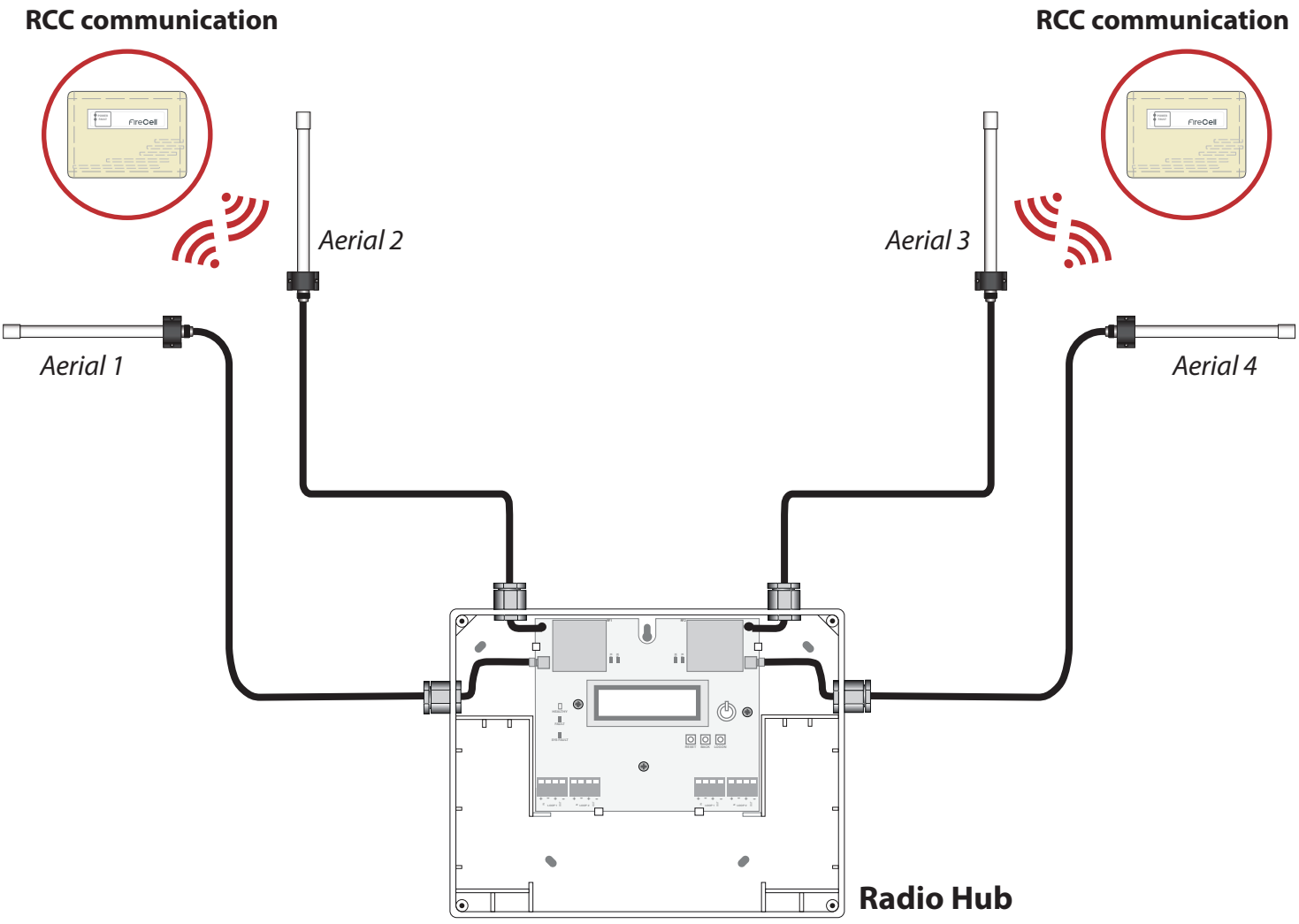
However, a tall, narrow building may benefit most from a horizontally mounted aerial.

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. As both sides are used for the network communication with RCCs, it is best practice to mount aerials on both sides of the Radio Hub, using aerials 1 and 4, or 2 and 3, for optimum robustness.

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



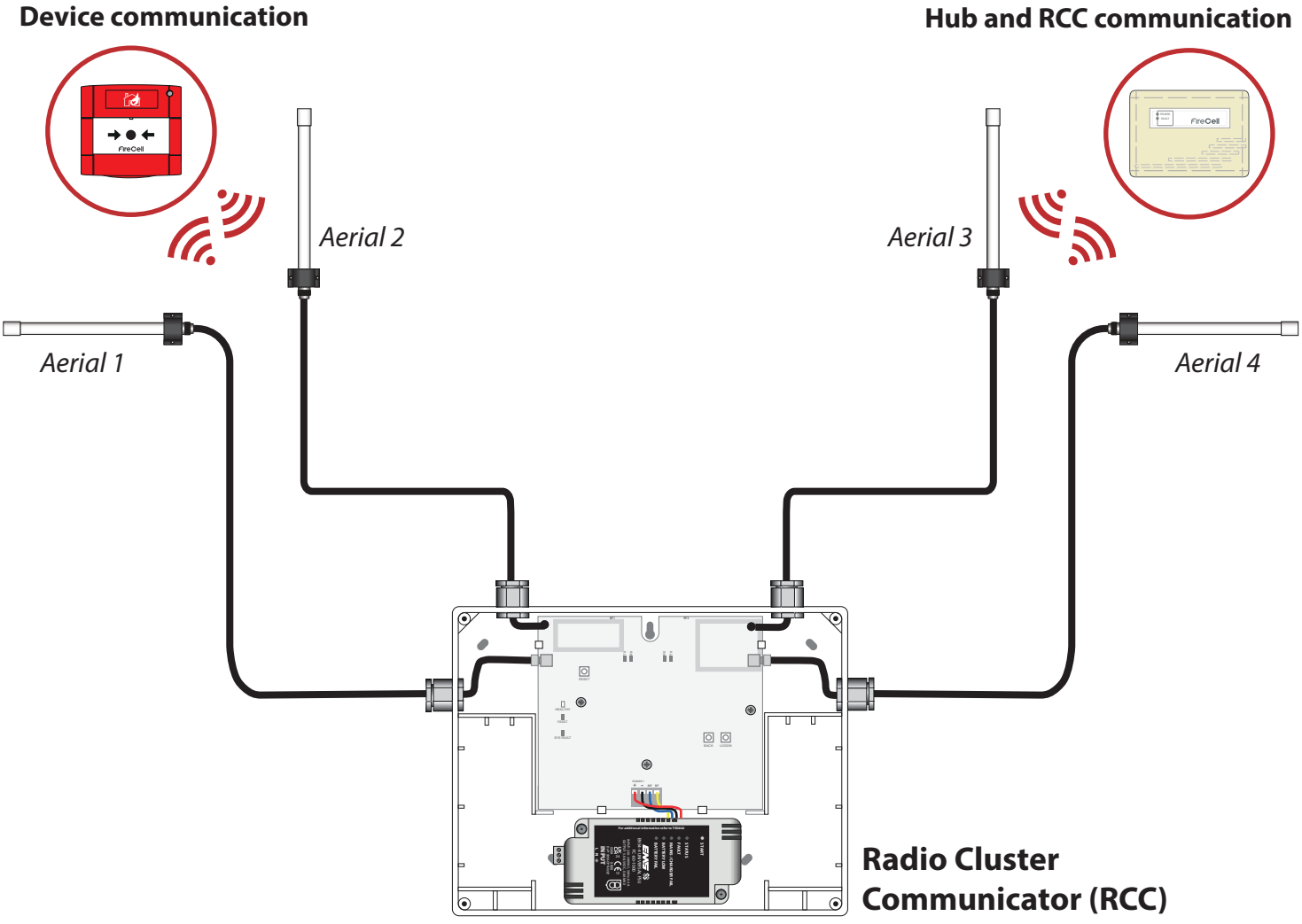
Note: Aerial cabling must enter the enclosure via the nearest aerial cable entry points, as shown above.

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 only one aerial, it is best practice in most scenarios to mount 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 only one aerial, it is best practice in most scenarios to mount both aerials in the orientations shown below, for optimum 360˚ coverage.

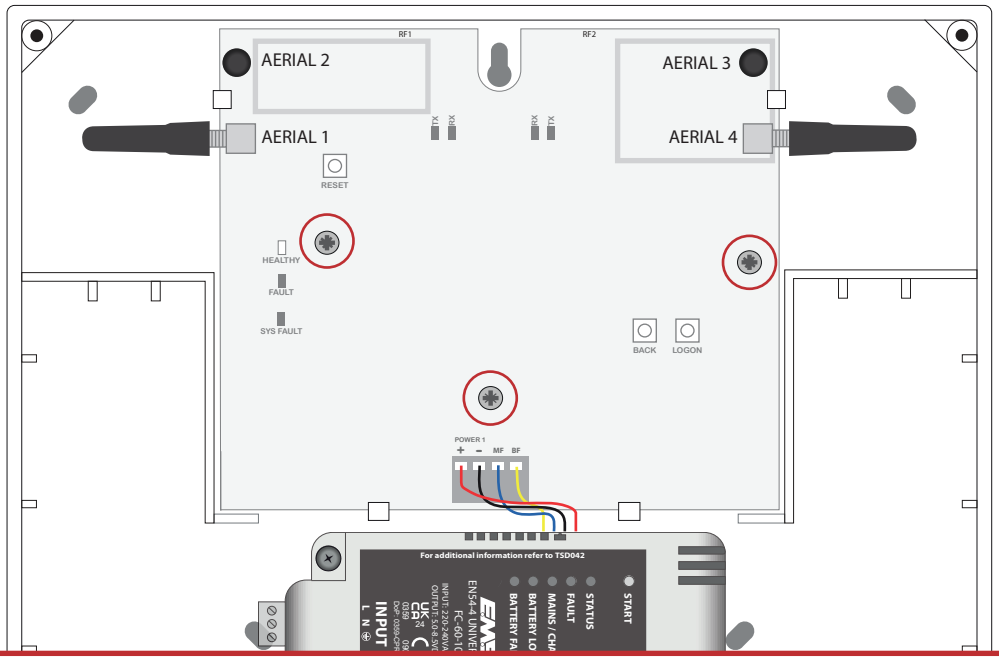


Note: Aerial cabling must enter the enclosure via the nearest aerial cable entry points, as shown above.

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

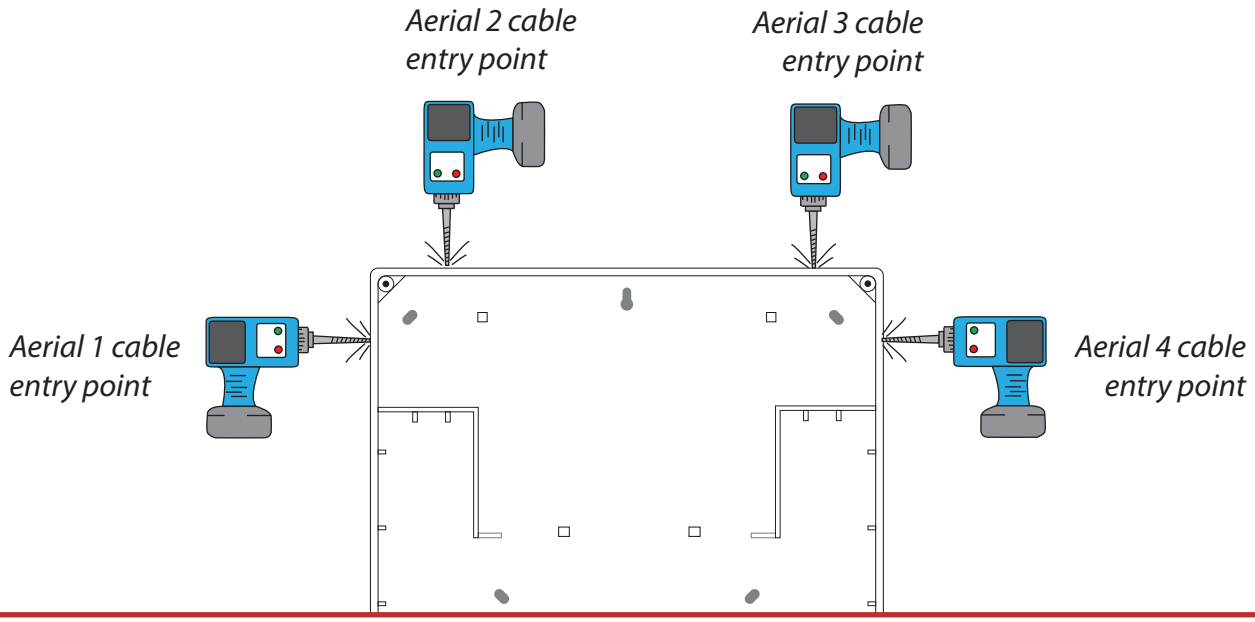
Optional PCB removal

Care should be taken when removing aerial cable entry points, to avoid damaging the PCB. If in doubt, 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 required, using the appropriate entry points, previously highlighted for optimum wireless performance.



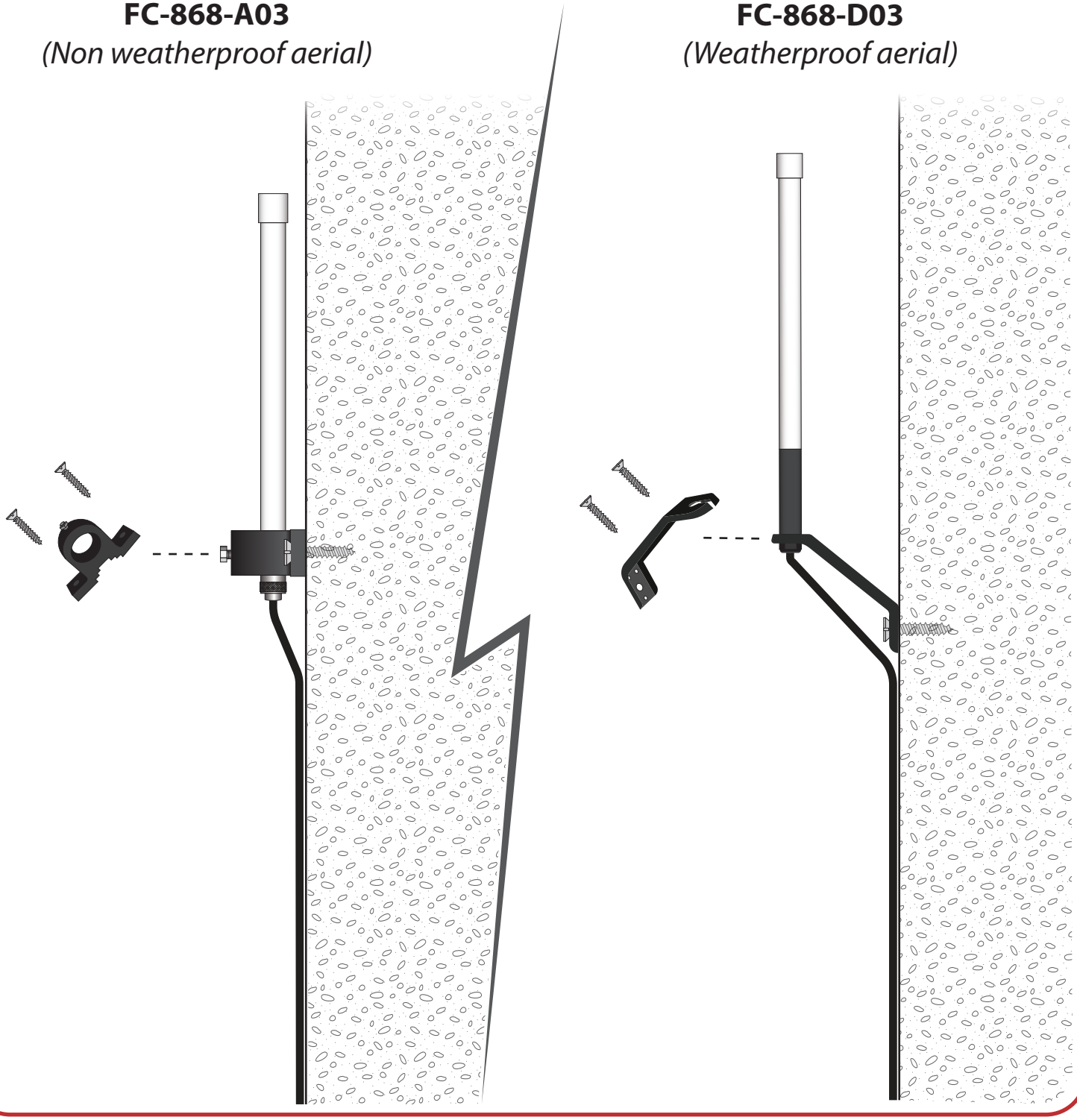
Wall mounting

Note: If mounting in conjunction with a 7325 pole mounting kit, go to the next page.

For direct wall mounting, either vertical or horizontal, the aerial should be mounted as shown below.

FC-868-A03
(Non weatherproof aerial)

FC-868-D03
(Weatherproof aerial)

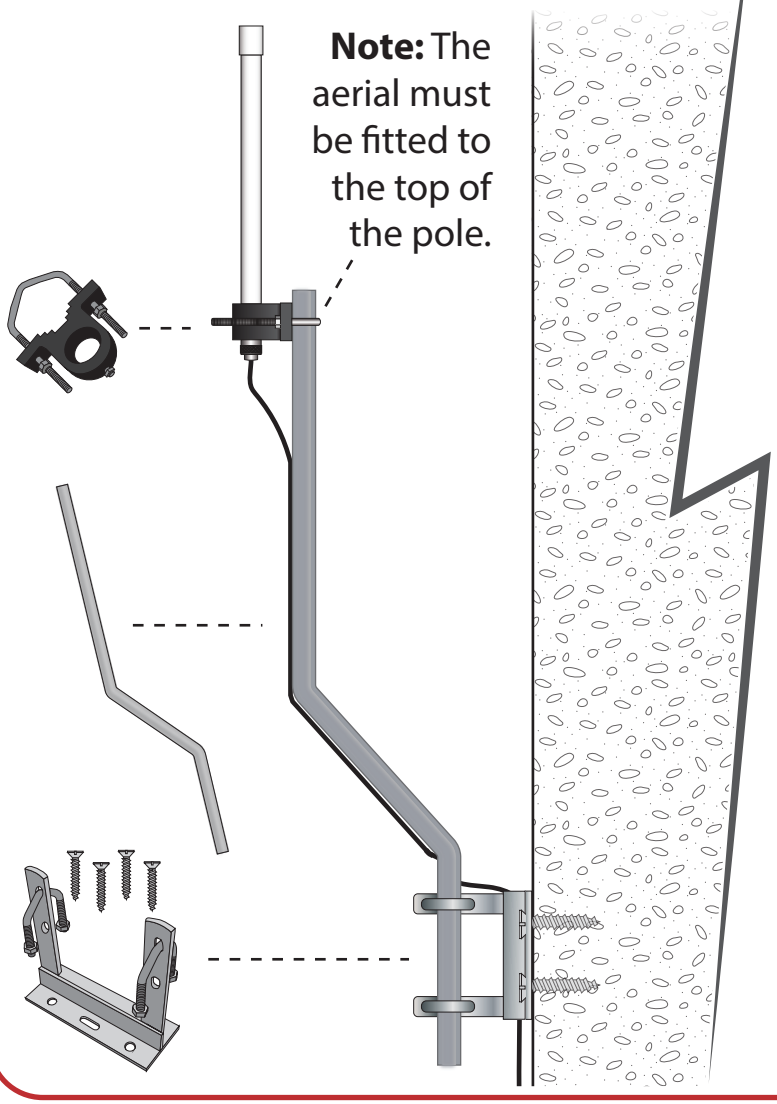


Pole mounting

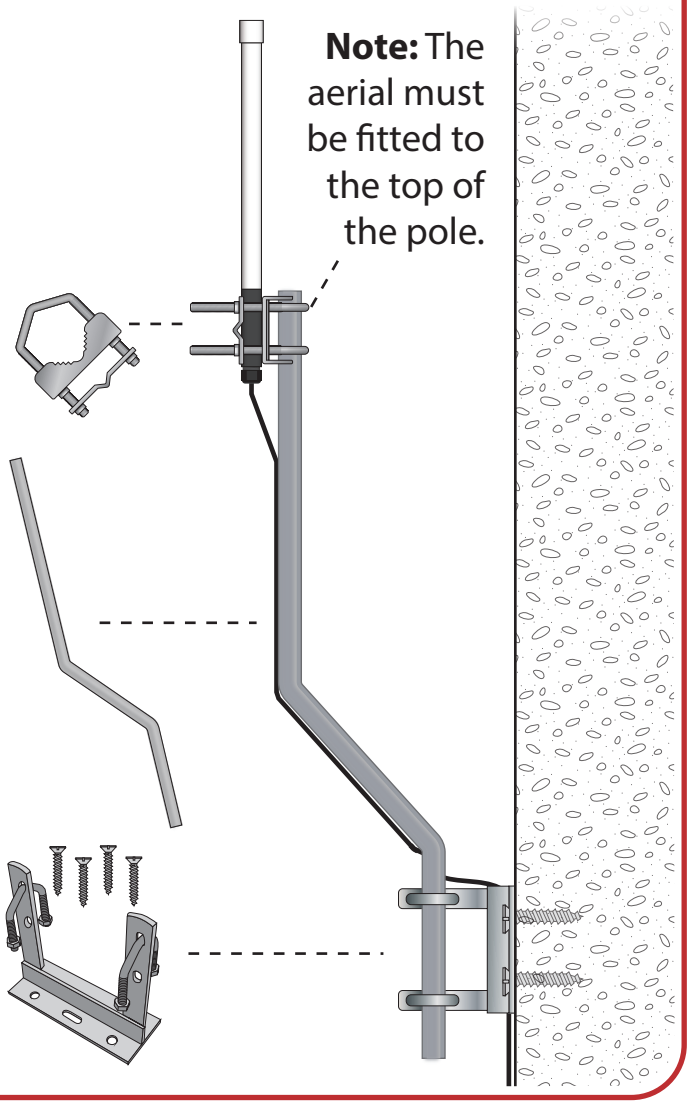
Note: Pole mounting is not possible in a horizontal orientation. If mounting in this orientation, mount directly to the wall.

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

FC-868-A03
(Non weatherproof aerial)



FC-868-D03
(Weatherproof aerial)



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