

Installation Instruction - SW3-769

Part Number: CM-7-60 Range

A. Introduction

The CM-7-60-NJ is an ultra-wideband low PIM ceiling mounted antenna covering 698MHz to 6Ghz. The antenna features an integrated groundplane and can be mounted on metallic or non-metallic ceilings. The antenna can be mounted by way of its central bush or utilising optional additional screw fixings concealed beneath the antenna's removable valance.

B. Select A Suitable Mounting Location

The antenna is omni-directional and should be mounted as centrally as possible within the desired coverage area. The roof space should be accessible at this location to permit routing of cables to the radio.

Select a flat level location on the desired ceiling which is free from obstructions and not too close to other ceiling mounted items - consider downward projection of antenna and any height clearance issues with low ceilings.

Take care to avoid mounting the antenna in close proximity to metal ceiling furniture such as girders, joists and air conditioning units as these objects may affect the antenna's performance.

C. Mount the antenna

If the ceiling is constructed with removable ceiling tiles, it may be best to remove the tile, mount the antenna, and then re-fit.

Rotate and remove the antenna's outer plastic valance cover from the central cover to expose the antenna base plate and mounting holes (Fig 1).

Mark the position of the mounting holes & RF connector, using the base as a template.

Drill holes for the mounting screws and RF connector. Alternatively if mounting to an appropriate material self tapping screws can be used. Screws should be countersunk to avoid interference with the antenna valance.

Remove the thumbscrew nut, mount the antenna base plate on the ceiling tile and replace the thumbscrew nut tightening it firmly. (Fig 2) Utilise countersunk screws (Fig 2) to secure the installation. Replace and rotate the outer antenna valance cover back into place.

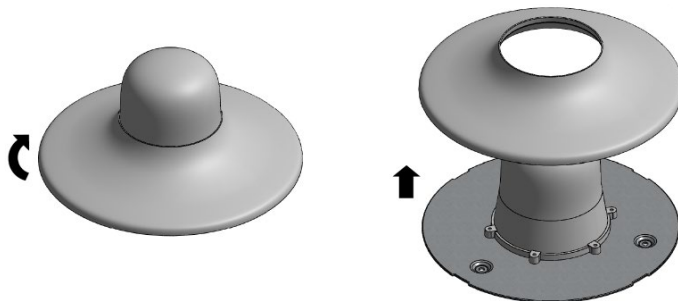


Fig.1 Rotate and valance counter clockwise and lift off to remove and access mounting holes

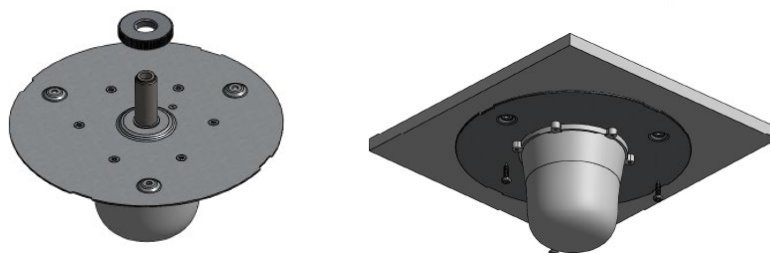


Fig.2 Remove thumbscrew, mount antenna to ceiling and secure thumbscrew back in place. Secure installation with screws if necessary.

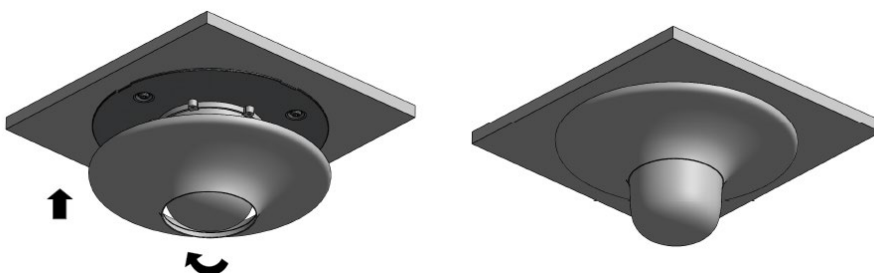


Fig.3 Rotate back into place and check over installation

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D. Route & Terminate the Coaxial Cable

Route the coaxial cable from the radio or combiner to the mounting location, taking care to avoid running it adjacent to existing wiring or ceiling furniture. Next fit a suitable male N-type coaxial connector or adaptor (as applicable) to the cable and connect the cable to the antenna. For a low PIM installation a suitable low PIM cable and connector assembly should be used. When connecting the N male connector to the N female bulkhead located on the antenna the recommended torque is 100 Ncm.

E. Commission & Test

Using a suitable antenna analyser, carry out a VSWR test in each freq. band. A VSWR of <2.5:1 in the relevant bands should be achieved.

F. Important Safety Notices



RF Safety Note

For deployments using high power - the proximity of professionals and members of the public during use should be taken into account when determining output power, Expert advice may be required to comply with local laws.



European Waste Electronic Equipment Directive 2002/96/EC

Please ensure that your old Waste Electricals and Electronics are recycled in accordance with the regulations. Please do not throw them away with your domestic rubbish as they will not be recycled.



RoHS 2: EU RoHS compliance is declared per **Directive 2011/65/EU** and its subsequent amendments. Homogeneous materials composing parts that are compliant with this legislation have less than 0.1% by weight each of lead, mercury, hexavalent chromium, PBB, and PBDE, and 0.01% by weight of cadmium. In situations where an exemption applies, the preceding limits, corresponding to the exempted substance(s), may be higher.