# Nexus RF – Remote Aerial Installation Process

**Version 1**

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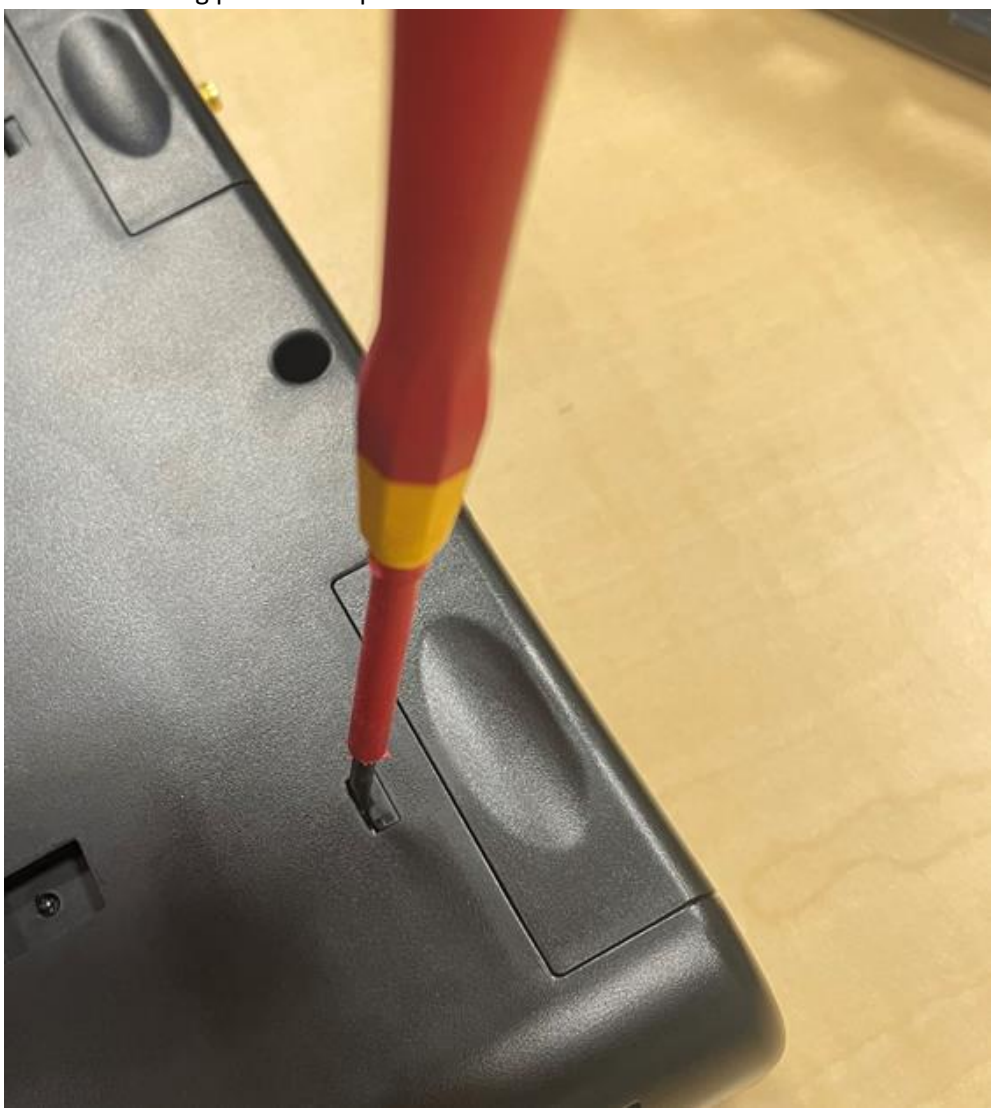
# Nexus RF – Remote Aerial Installation Process

**N.B For NACR-2's please Begin at Step 5**

1. Remove NACR from Mount and unplug any connections.


2. Remove Black rubber cover from around router (easiest to remove one corner at a time starting with getting cover over Aerial post).

3. Remove blanking plate from spare Aerial Slot



4. Install new EIM module in slot.

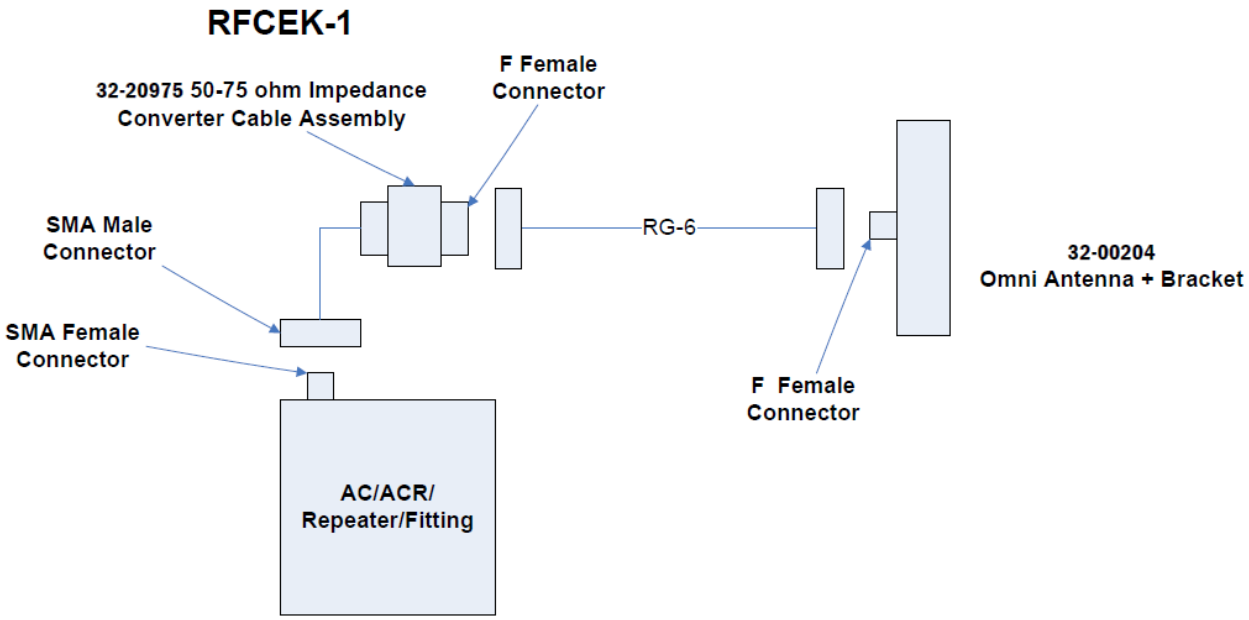

5. Install Impedance Converter – RCIC-01 on 2nd EIM.

6. Connect 30m Coaxial Aerial Cable to impedance converter – RCIC-01

7. Run and secure Aerial cable to location of remote Aerial.
   N.B Please mount to wall with 25mm Saddle Clips – Mounting with metal bracket provided may cause communication errors on site.

8. Full NACR-2 (Or NACR-1 + NACR-1EXPK) set up shown below. Total components should include:
   - NACR Router
   - 30m Aerial Cable
   - Impedance converter – RCIC-01
   - Omni-Directional Antenna – ODA-F-01

# Additional Reference Material




**Intended Application**
Allows an antenna to be mounted remotely from the AC/ ACR/ Repeater/Fitting ie Via RG-6 coax cable.

**Additional Parts Available**
**32-20966 (2 way 75ohm splitter)**
**32-20990 (Directional Antenna F female connector)**
**32-00204 (Omni Directional Antenna)**

# Omni directional antenna

## Antenna type: **ODA-F-01**

Operating frequency: 915 to 928 MHz

Antenna type: Omni-directional

Polarization:  Vertical

Gain: 3dbi

Impedance: 75 Ohm

**Size:**

Length:  220mm

Diameter: 25mm

Housing: plastic / grey

Connector: F socket

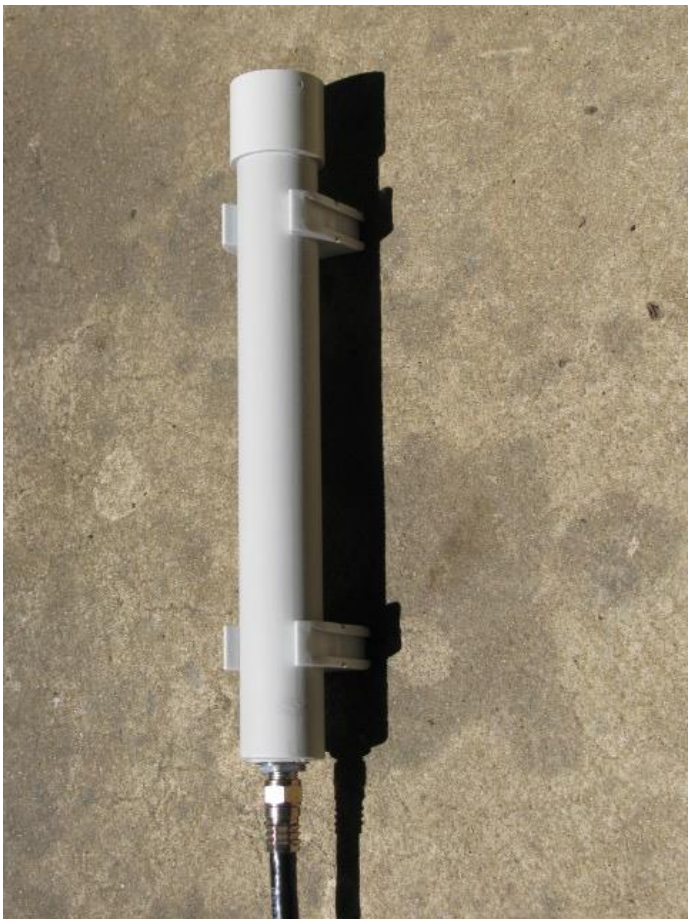
# Installation tips

## Wall installation (indoor and outdoor)

Wall installation can be implemented using two conduit PVC clips, manufactured by CLIPSAL (Mfg. PN: 280 / 25).

Note that connector join is not waterproof and may need Heat-shrink tube or any other appropriate protection in case of rain expose.

Note: Don't use metal mounting bracket!



# Outdoor installation using mast

The following components are needed for mast installation:

- Metal mast 25mm diameter (Aluminium or Still).
- Two coupling component (CLIPSAL 242 / 25)
- Conduit 25mm diameter, about 35mm length
- Antenna, ODA-F-01
- RF coax cable (75 Ohm) with F connector

Roof mounting:

If the antenna is mounted above the roof, clearance of 600mm minimum is highly recommended!

# Impedance converter 50 / 75 Ohm

RF Impedance converter type: **RFIC-01**

Operating frequency: 915 to 928 MHz

Input:

Connector: SMA

Impedance: 50 Ohm

Output:

Connector: F

Impedance: 75 Ohm

VSWR: 1.2

Insertion loss (typical value): 0.25 db

Size:

Length: 80mm (excluding F connector and RF cable with SMA connector)

Diameter: 25mm

Cable length: 170mm

# Installation tip

## Mounting approach:

- Bracket (PVC or metal)
- Clip

Note: Don’t unscrew the nut on F connector!