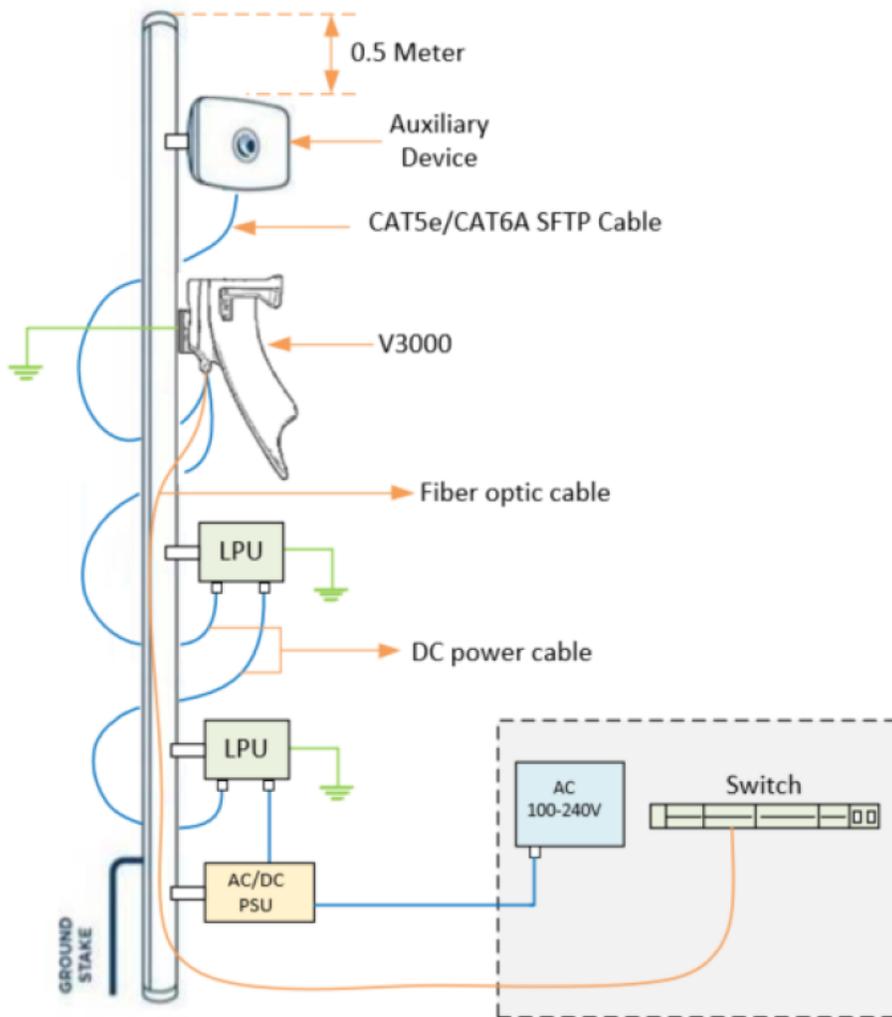


V3000

[V3000 typical installation](#) figure shows a typical installation of cnWave DN on a mast and powered through outdoor AC/DC PSU.

1. Use recommended grounding and LPU connections.
2. Use recommended cables for interfacing ODU (refer to the supported power supply and cable length details in the [Power supply units \(PSU\)](#) section).
3. Always install ODU 0.5 meters below the tip of the pole.

Figure 66: V3000 Typical installation

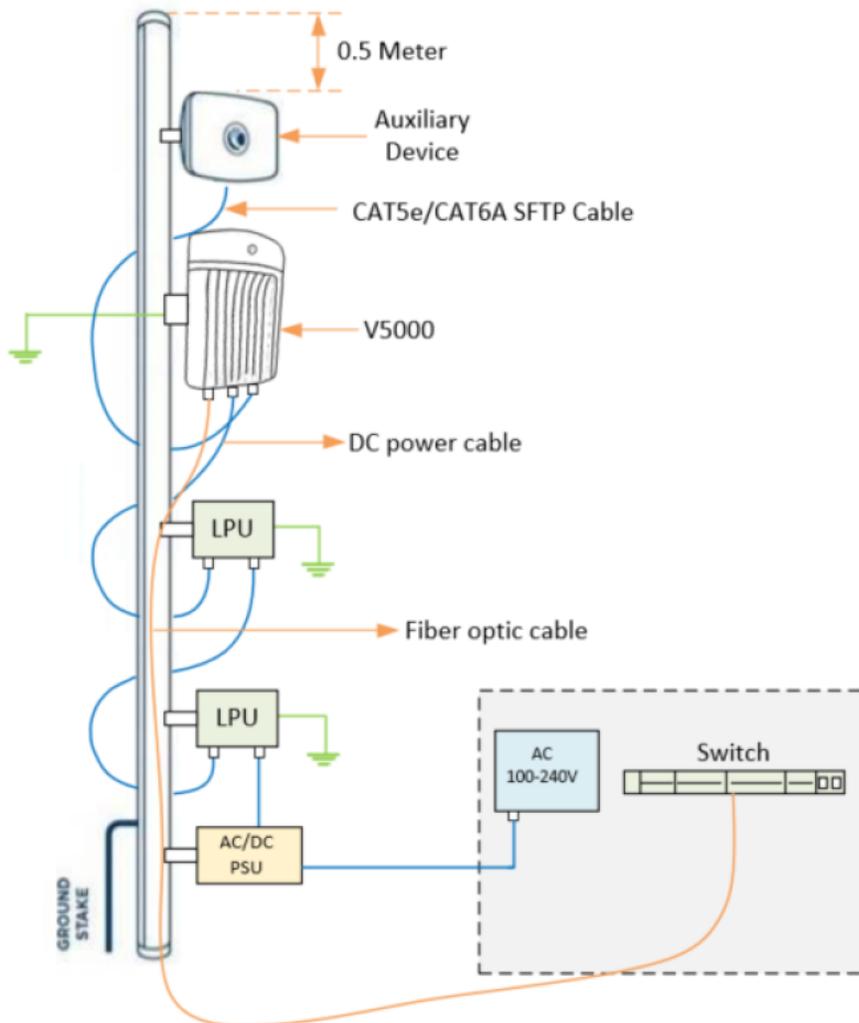


V5000

[V5000 typical installation](#) figure shows a typical installation of cnWave DN on a mast and powered through outdoor AC/DC PSU.

1. Use recommended grounding and LPU connections.
2. Use recommended cables for interfacing ODU (refer to the supported power supply and cable length details in the [Power supply units \(PSU\)](#) section).
3. Always install ODU 0.5 meters below the tip of the pole.

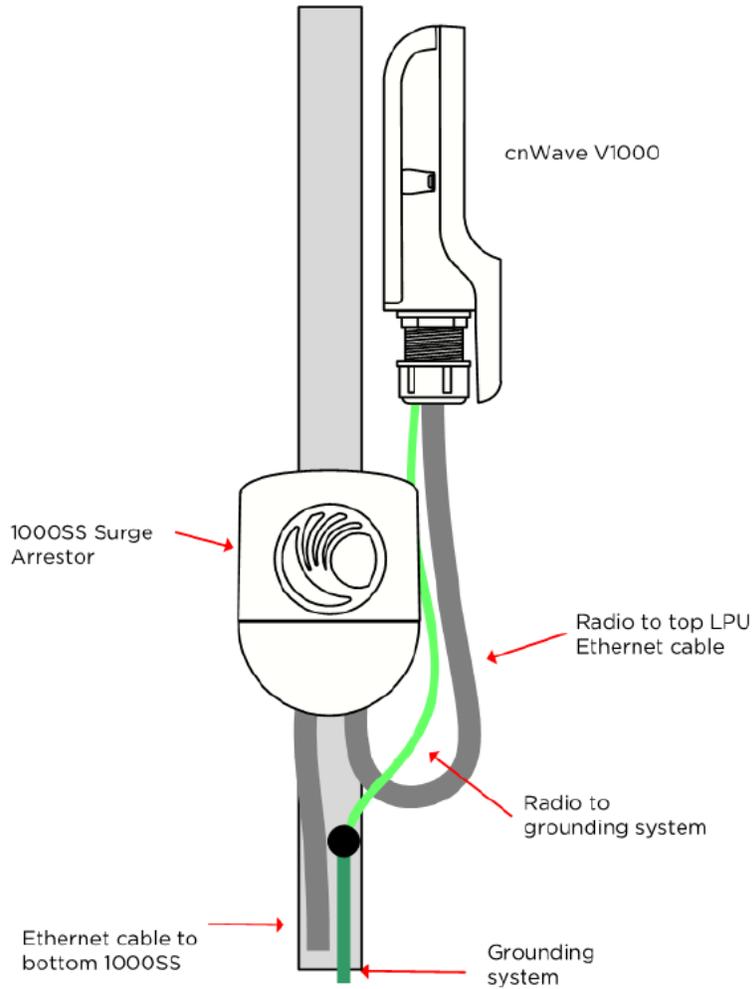
Figure 67: V5000 Typical installation



ODU Interface with LPU on the pole

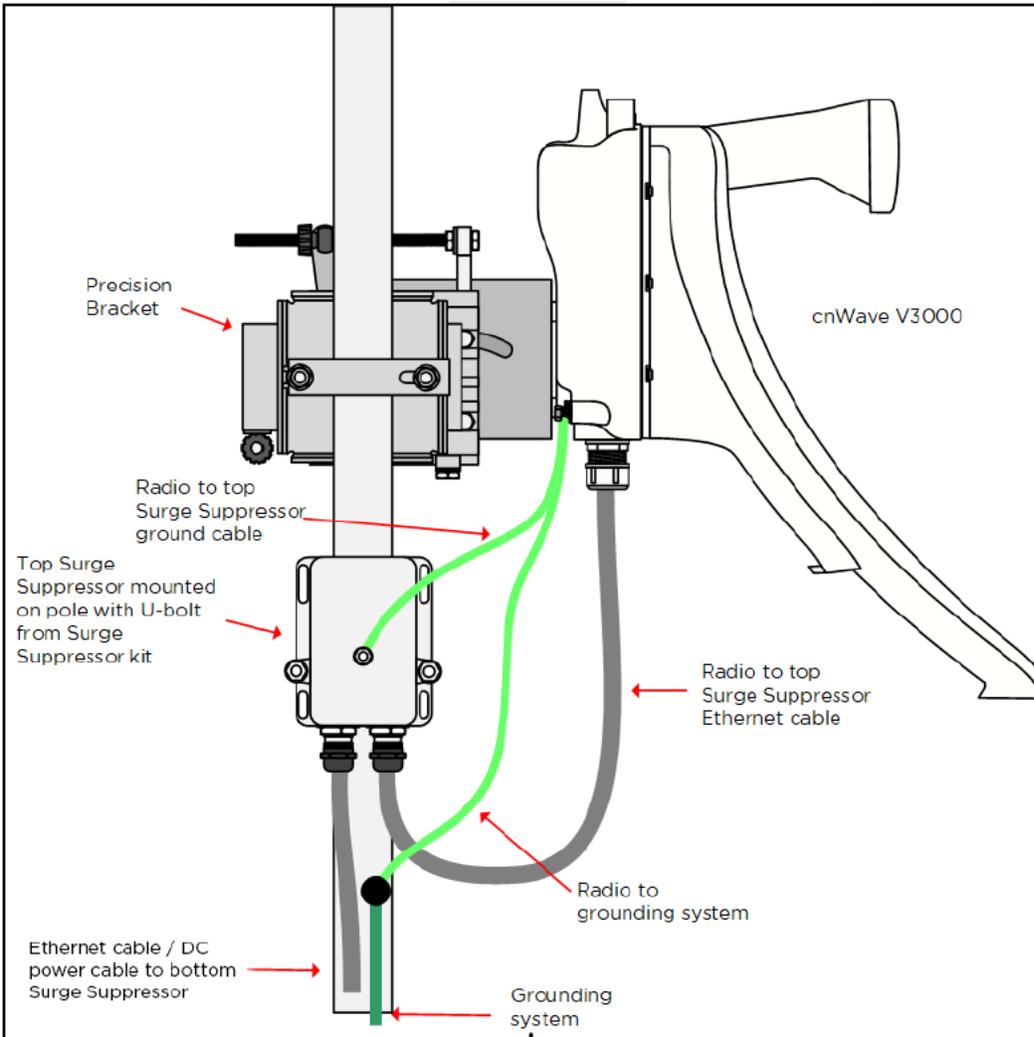
[Installing V1000 on the pole](#) below shows steps show the installation of V1000 CN on a pole. Use 56V Gigabit Surge Suppressor for lightning protection. Ensure that the cable glands and grounding connections are made as in the following figure:

Figure 68: *Installing V1000 on the pole*



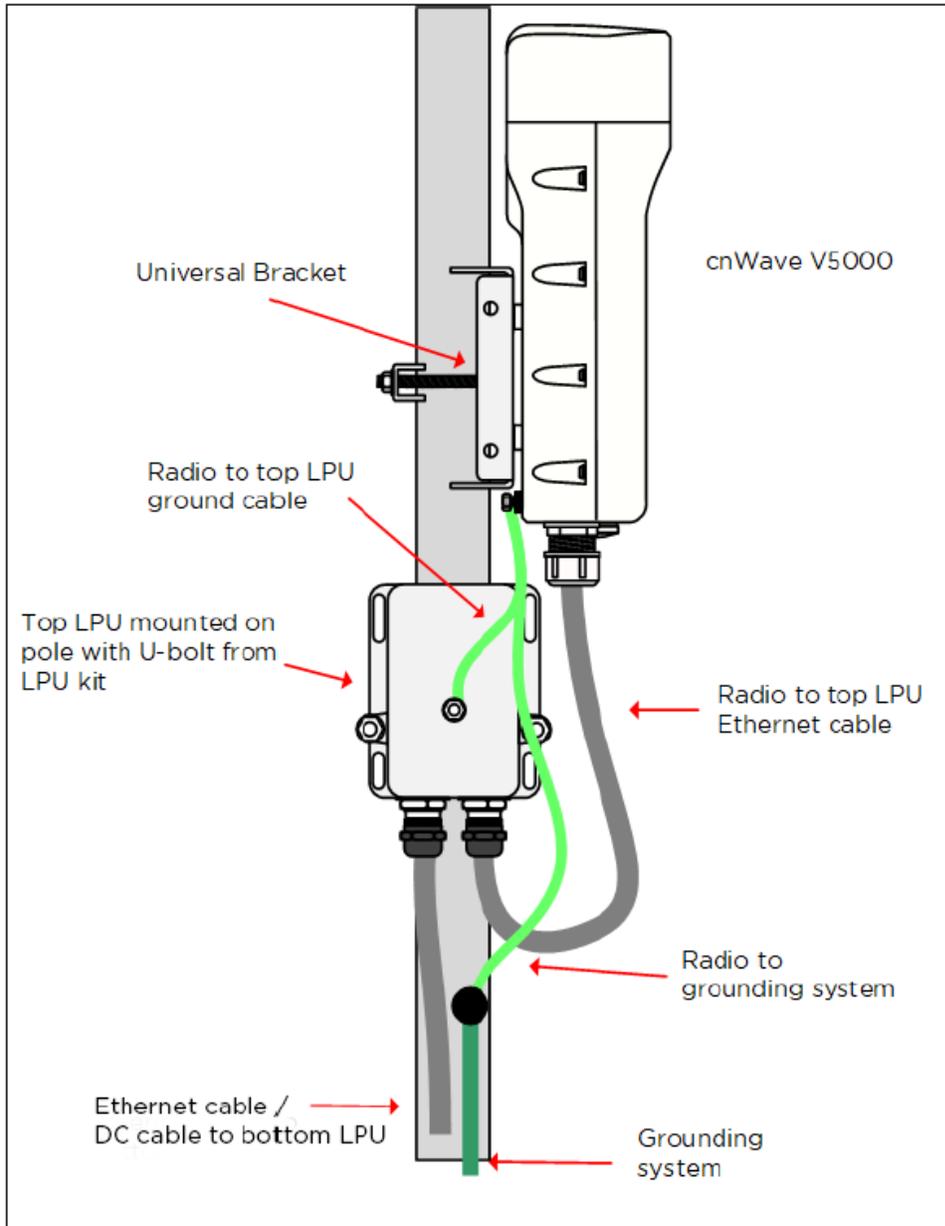
[Installing V3000 on the pole](#) shows an installation of V3000 CN on a pole using a precision bracket. Use a recommended LPU for surge protection. Ensure glands and grounding connections are made as in the following figure:

Figure 69: Installing V3000 on the pole



[Installing V5000 on the pole](#) shows an installation of V5000 DN on a pole using a tilt bracket. Use a recommended LPU for surge protection. Ensure glands and grounding connections are made as in the following figure:

Figure 70: Installing V5000 on the pole



Attach ground cables to the radio

1. Fasten the ground cable to the radio grounding point using the M6 lug.

Figure 71: Radio grounding point



2. Tighten the ODU grounding bolt to a torque of 5 Nm (3.9 lb-ft).

Mounting the ODU on the mast or wall

Select the most appropriate bracket mounting arrangement from the options listed in the [Mounting bracket options](#). Refer to individual procedures below for each of the options:

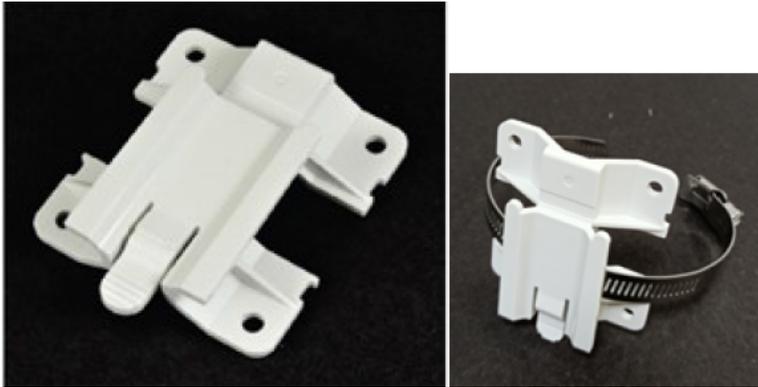
- [V1000 pole mount](#)
- [V1000 wall mount](#)
- [V1000 adjustable pole mount](#)
- [V3000 precision bracket](#)
- [V3000 tilt bracket assembly](#)
- [V3000 tilt bracket assembly with band clamps](#)
- [V5000 pole mount bracket](#)
- [V5000 wall mount bracket](#)

V1000 Pole mount

The V1000 CN can be installed to a pole using the supplied mounting plate and jubilee clip. Follow the below instructions to mount V1000 to the pole:

1. Insert the hose clamps through the mounting plate and clamp to the pole by applying 3.0 Nm torque.

Figure 72: Inserting the hose clamps



2. Insert the radio into the mounting plate on the pole.

Figure 73: Inserting the radio



V1000 Wall mount

Follow the below instructions to mount V1000 on the wall:

1. Fix the mounting plate (supplied with the V1000 ODU) securely to a vertical wall, using suitable fixings.

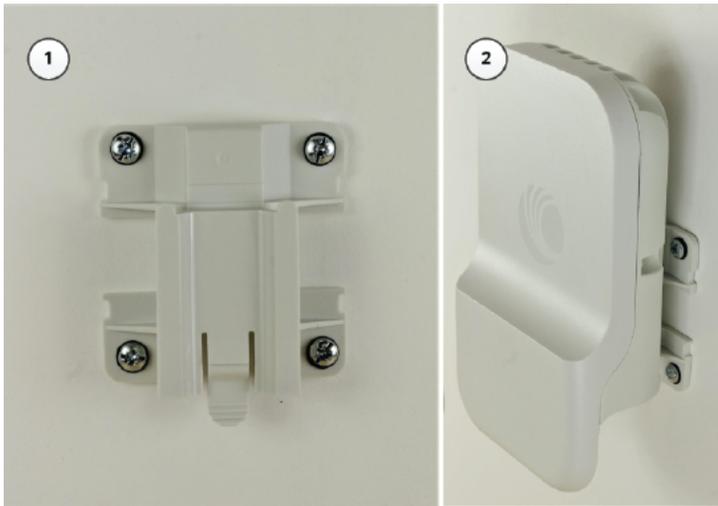


Note

Fixing hardware is not supplied with the V1000.

2. Slide the V1000 ODU onto the mounting plate from above, ensuring that the spring clip in the mounting plate clicks into place on the radio.

Figure 74: Fixing the mounting plate and the spring clip



V1000 Adjustable pole mount

Follow the below instructions to mount V1000 to the adjustable pole:

1. Insert the hose clamps through the adjustable pole mount bracket and clamp to the pole by applying 3.0 Nm torque.

Figure 75: Fixing hose clamps through adjustable pole mount bracket



2. Insert the radio into the adjustable pole mount bracket on the pole.

Figure 76: Fixing the radio on the pole



V1000 Alignment

The V1000 CN requires minimal effort to align as the internal antenna can beam steer ± 45 degrees in azimuth and ± 20 degrees in elevation from boresight. If the unit is installed with the remote node visible within this range, no further adjustment is required.

V3000 Precision bracket

The precision bracket is used to mount the cnWave V3000 CN on a vertical pole, providing fine adjustment up to 18° in azimuth and $\pm 30^\circ$ in elevation for accurate alignment of the V3000. The precision bracket is compatible with pole diameters in the range of 25 mm to 70 mm (1 inch to 2.75 inches). Note that the Jubilee clamp allows for larger diameter poles and the range depends on the clamps used.

These instructions illustrate the procedure for assembling and using the precision bracket. The mounting of the optional alignment telescope also explained.

Figure 77: V3000 Precision bracket



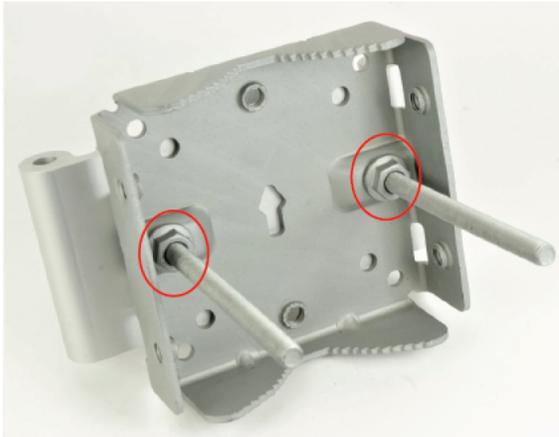
1. Insert two of the long (120 mm) screws through the azimuth arm and the bracket body. The screws locate in the slots in the azimuth arm.

Figure 78: Two screws in the slots of the azimuth arm



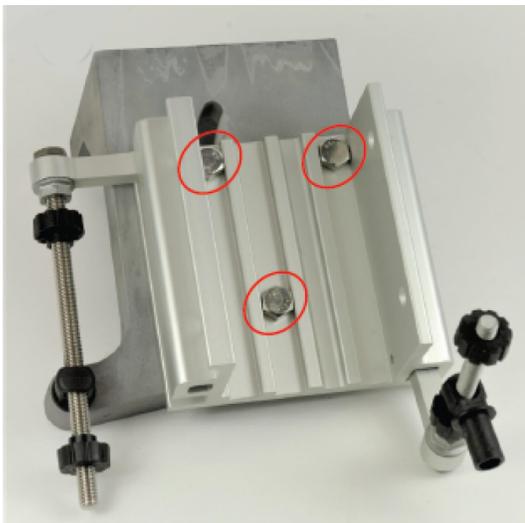
2. Fit two flanged M8 nuts to the long screws on the back of the bracket. Tighten using a 13 mm spanner.

Figure 79: Two MB nuts on the back of bracket



3. Insert the three medium-length (40 mm) M8 screws through the bracket base and the V3000 mount. The screws locate in the slots in the bracket base.

Figure 80: MB Screws in the slots in the bracket base



You must ensure that the pivot pin in the elevation adjuster is located in the circular hole in the V3000 mount.

Figure 81: The pivot pin in the circular hole of mount



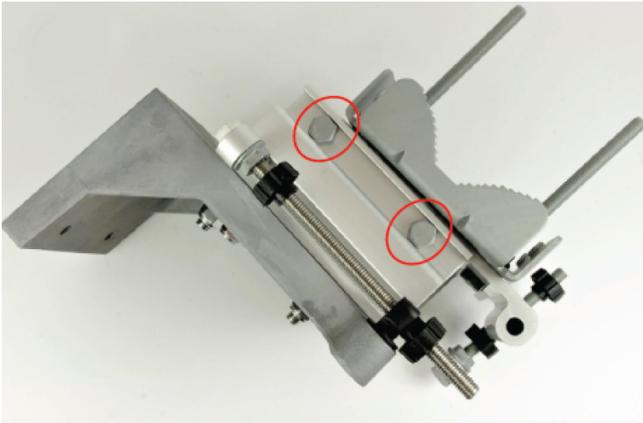
4. Fit plain washers and M8 Nyloc nuts to the screws on the back of the bracket base. Tighten using a 13 mm spanner.

Figure 82: Plain washers and M8 Nyloc nuts on the back of the bracket



5. Insert the two remaining long (120 mm) M8 screws through the bracket body and the azimuth arm. The screws must locate in the slots in the bracket body.

Figure 83: MB Screws located in the slots in the bracket body



You must ensure that the pivot pin in the azimuth adjuster is located in the circular hole in the bracket body.

Figure 84: The pivot pin in the circular hole of bracket body



6. Fit three sets of spacers, plain washers and M8 Nyloc nuts to the screws on the underside of the bracket base. Tighten using a 13 mm spanner.