

Portable Antenna Positioner

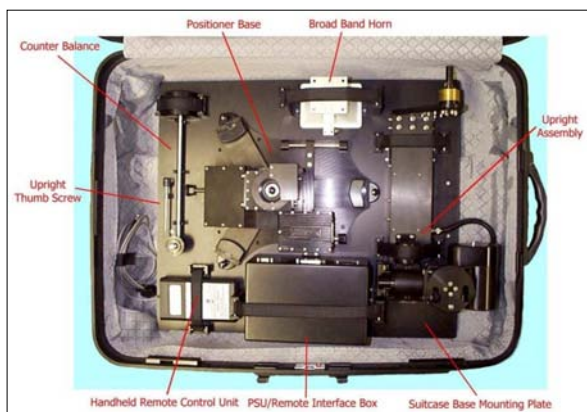
Light Weight, 3 - Axis, Easily Transportable, Rapid Assembly



The Model D415 is a precision, three - axis antenna positioner designed when disassembled to fit into a standard-sized suitcase for ease of transport and for covert operation. It is also available in a larger case encompassing dish & feed cables with room for a laptop.

This high quality positioner is ideal for surveillance, tracking and SIGINT, although it can be used for many other signal collection/tracking purposes.

Many different types of control can be utilised, including PDA/hand-held terminal, laptop, fibre-optic interface and PC. Variable speed, sector scan etc are available with an optional GUI or can be programmed by the user. This type of positioner can take up to a 0.6m dish for antennas up to and including millimetre-wave.



Large Suitcase containing complete system



Smaller case (positioner only)

Performance Specification

The positioner is shown fitted with a 600mm Gto 18 GHz surveillance antenna. Other feeds, including RHCP and LHCP and different reflector sizes can be provided.

Frequency	G- 18 GHz
Gain	13 - 29 dBi
Beamwidth	2 to 20 degrees typ.
Polarisation	Linear
VSWR	2.5 : 1 maximum

Mechanical Specification

Full 3 axis tracking antenna - full coverage of the celestial hemisphere

Plane	Movement (degrees)
Azimuth	+/- 175 degrees
Elevation	-13 to + 90 degrees
Polarisation	-100 to +100 degrees
Manual control of 4th axis in Z-plane	80 mm

Mechanical Specification is continued on next page

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Mechanical Specification continued

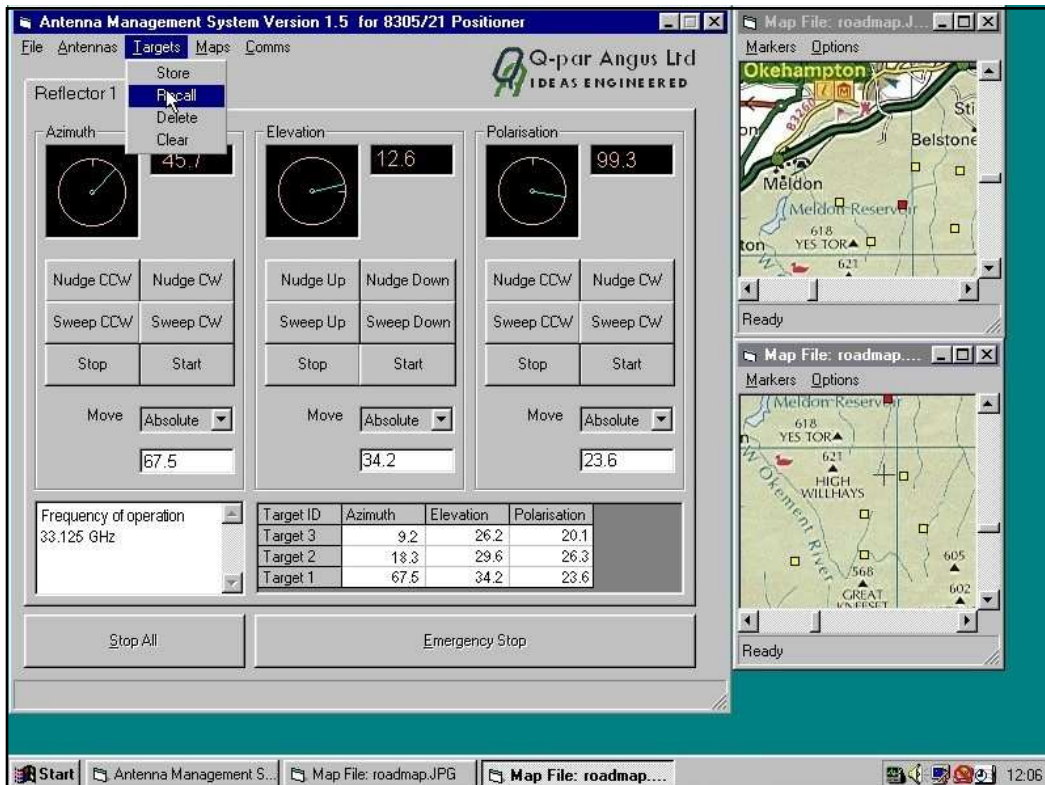
Mechanical Specification	Units
Drive Torque	10 Nm
Load Capability	4 kg
Maximum Velocity - Azimuth	0.83 rpm [5° per sec]
Maximum Velocity - Elevation & Polarisation	0.33 rpm [2° per sec]
Recommended Velocity - Azimuth	0.25 rpm [1.5° per sec]
Recommended Velocity - Elevation & Polarisation	0.125 rpm [0.75° per sec]
Noise Level (at above speeds)	45.5 dBA @ 1m
Gear Ratio - Azimuth	6400:1
Gear Ratio - Elevation & Polarisation	9600:1

Components	Weight
0.6 m Antenna & Feed	3.5 kg
Positioner Only	7.5 kg
Suitcase with Furnishings (Dependent on case)	6 kg - 16 kg
Complete Suitcase Package	13.5 kg - 30.5 kg

Fully tailored to customer's specifications

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Antenna Controller System & Graphic User Interface (GUI)



The GUI controller illustrated above facilitates :-

- Independent control of multiple positioners
- Target store and recall
- Workspace save and load
- Use of serial ports or network connection to controllers
- Surveillance and sector scan
- Use of maps as an operational aid

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