



**AS-217
Variable Sector
Antenna**

MANUAL V1.1



Dear customer,

We would like to thank you for selecting this equipment and welcome you to the SVP's growing family of products.

We are sure that the addition of this equipment will cause you a complete satisfaction in your existing installation.

Please read these instructions carefully, and keep them in hand in case you have to refer to them.

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Chapter 1: Description

The AS-217 sector antenna works in the 2 GHz band and has 800 MHz bandwidth. It has a narrow elevation beamwidth and variable beamwidth in azimuth which can be configured between 45 and 130°. The antenna has a mechanical slide for easy in field configuration. Antenna gain varies from 18 to 14.5 dBi depending on the configuration.

The AS-217 is a high gain antenna built up in a compact package. It has been designed to be installed in a mast as they are commonly used in the receiver site. Thanks to the wide horizontal beamwidth of this antenna, a wide coverage area is achieved. The transmitter can move and transmit the signal from any point inside that wide coverage area offered by these antennas. The transmitter system can be in motion or standing, as long as it stays in the coverage area.

The most interesting application is to use different antennas working in diversity in the central receiver site. Each antenna will cover a determinate area of a city. Thanks to diversity technique a wide city coverage area is achieved and live transmissions can be carried out from almost any point of the city.

In the following figure it is shown the AS-217 tied to a mast:



Figure 1.1 AS-217 Sector panel antenna

Chapter 2: Technical Specifications

2.1 AS-217 Technical Specifications

Electrical Specifications	
Frequency band	2 – 2,7 GHz
Bandwidth	800 MHz
3dB Horizontal (Az) Beamwidth	45° - 60° - 80° - 90° - 120° - 130°
Gain	18 - 17 - 16,5 - 16 - 15 - 14,5 dBi
Polarization	Linear (Vertical)
3dB Vertical (Ei) Beamwidth	8°
VSWR	< 1,5
Front to back ratio	> 25 dB
Cross Polarization	> 30 dB
Sidelobe level	> 12 dB
Power rating	50 W
Impedance	50 Ohm
Lightning Protection	DC ground

Table 2.1 AS-217 Electrical Specifications

Mechanical and Environmental Specifications	
Size (Length x width x depth)	91,4 x 16,2 x 8,4 cm (36 x 6.4 x 3.3 in)
Weight	6,8 kg (15.0 lbs)
Radome	UV stabilized ABS plastic, gray
Wind survivability	125 mph (201 kph)
Wind load	1.6 ft ² (0,18 m ²)
Operating temperature range	-45°C to +65°C
Pole mount diameter range	5,0 to 7,5 cm (2.0 to 3.0 in)
Environmental	IP 65
Connector	N female
Mechanical Downtilt	30°

Table 2.2 AS-217 Mechanical and Environmental Specifications

Chapter 3: Radiation Patterns

3.1 AS-217 Radiation Patterns

The figures below show the horizontal radiation patterns for each configuration (45°, 60°, 80°, 90°, 120° and 130°):

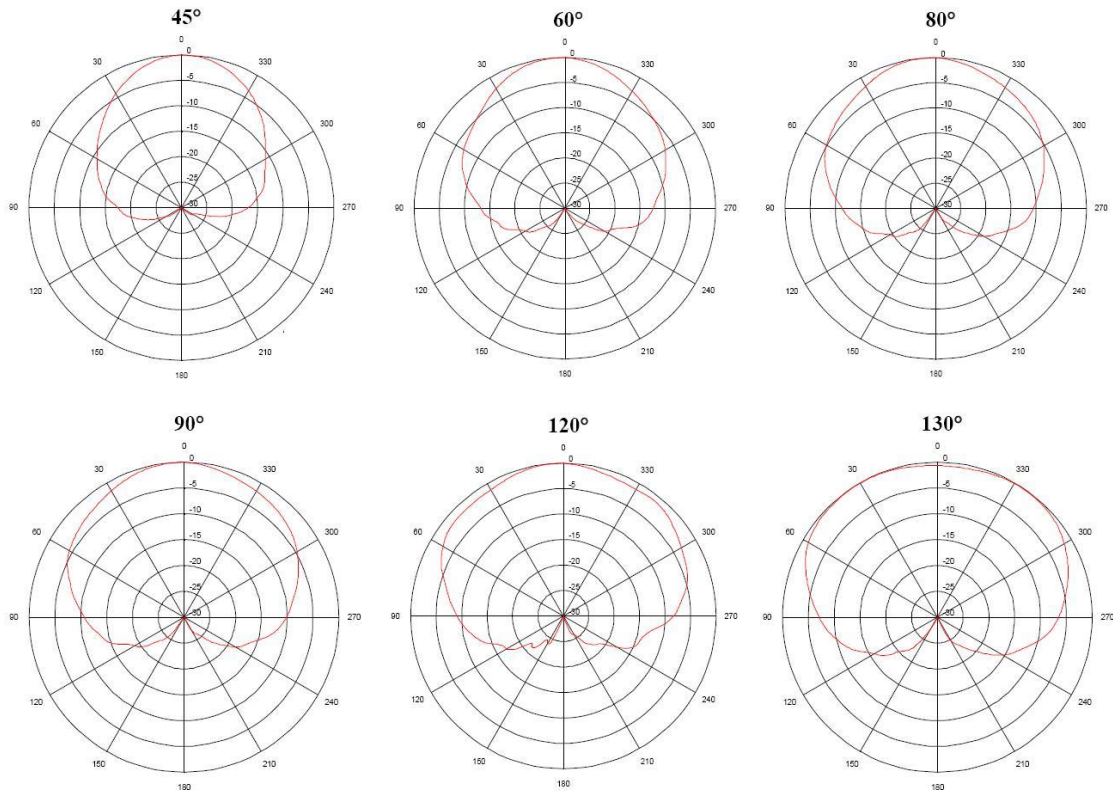


Figure 3.1 AS-217 Horizontal radiation pattern for each configuration

The figure below shows the vertical radiation pattern:

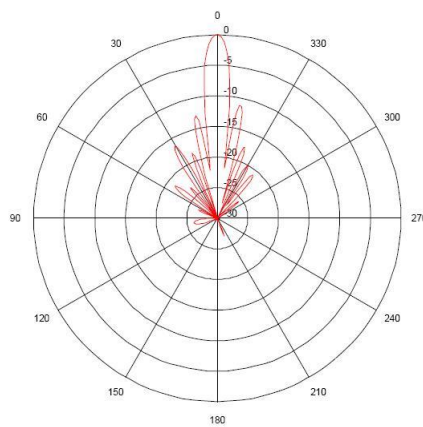
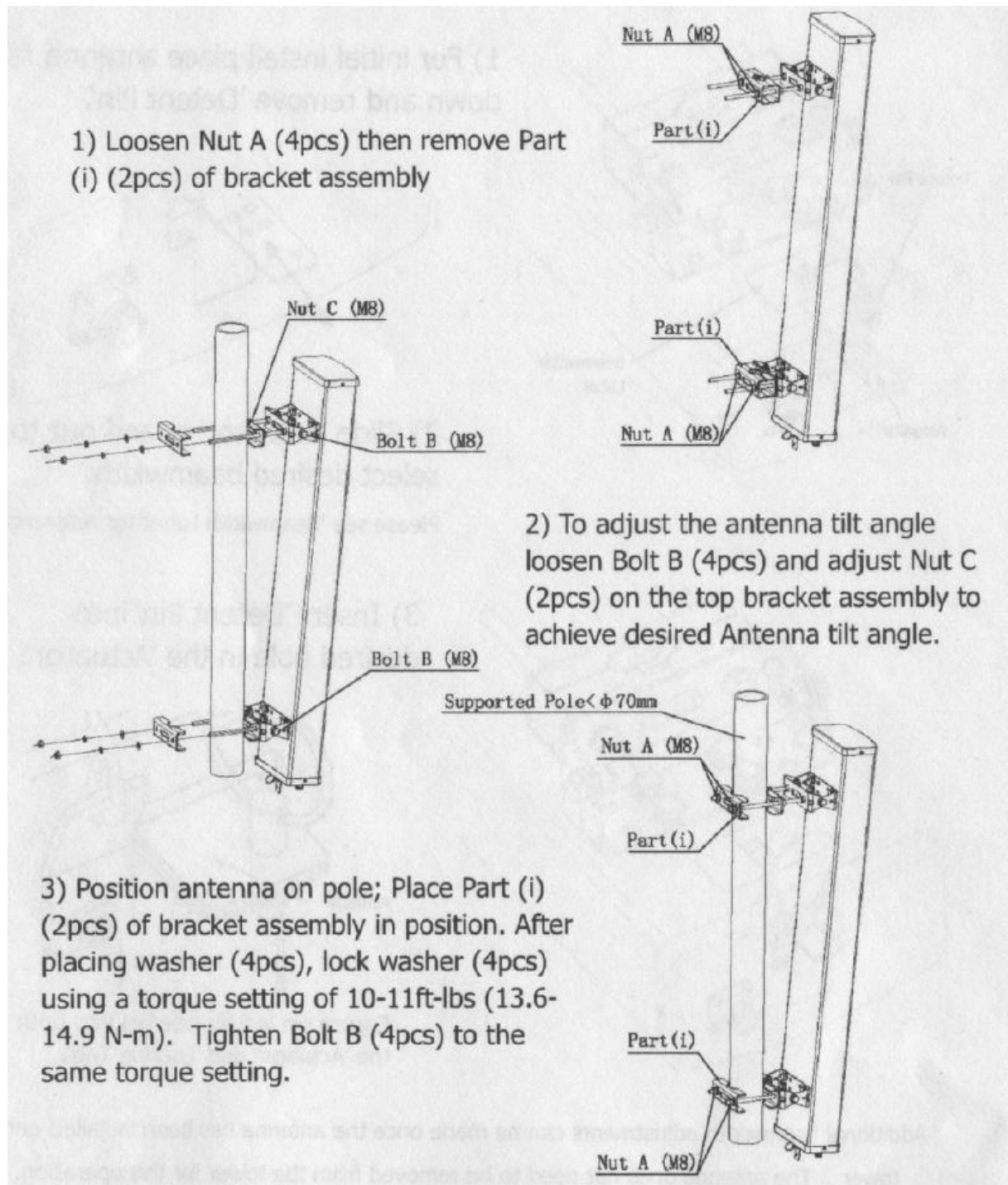


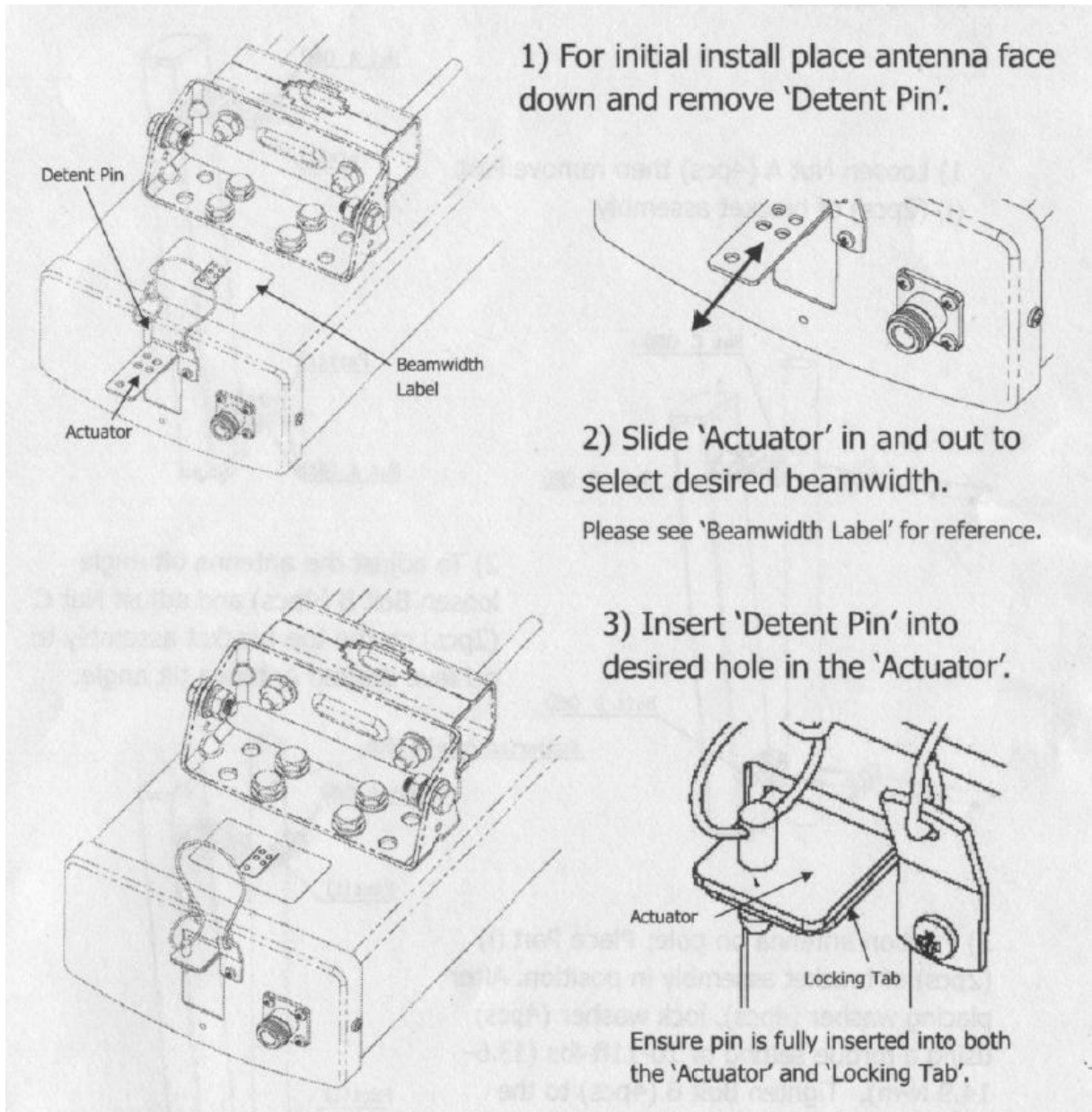
Figure 3.2 AS-217 Vertical radiation pattern

Chapter 4: Mounting Instructions

Bracket installation instructions:



Beamwidth selection instructions:



NOTES:

End note

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SVP

BROADCAST
MICROWAVE



C/Zubiaurre 7 bajo
48215 Iurreta
Vizcaya - Spain

Tel: (+34) 94 620 37 22

info@svpbm.com
www.svpbm.com