

A997-0025 Revision K, September 2016

Mounting Kits For Single Band 125mm (4.9") Profile Panel Antennas F-084-S4 & T-085-S4

General

This instruction sheet contains all necessary information required to assist in the correct installation of ARGUS Single Band 125mm (4.9") Profile Panel Antennas.

The following symbols can be found next to text outlining important information.



Please follow the procedure marked with this symbol precisely. Non-compliance may lead to damage of the product.



Handy tips when installing product.

Unpacking

Make sure that the antenna and the accessory items listed below have been provided and have not been damaged during transport.

- Antenna
- Mounting kit (mounting kit components are given on mounting assembly drawing supplied).
- Hex Keys (4 and 6mm AF)

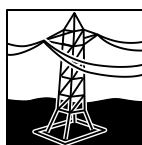
Installation Instructions



1. Ensure a torque spanner is used when tightening fasteners, see table below for the correct torque specification.

Fastener size	M8
Stainless Steel Nut Torque	9-10 Nm (6.6-7.4 ft.lb)
Stainless Steel Screw Torque	See Figs Below

2. Ensure mounting pipe diameter is within the range of 50mm (2") - 100mm (3.9") as specified on the mounting kit assembly drawing. For high wind locations a pipe diameter between 75mm (3") and 100mm (3.9") is recommended.



Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrocute you.



Do not install on a wet or windy day or when lightning or thunder is in the area. Do not use metal ladder.



Wear shoes with rubber soles and heels. Wear protective clothing including a long-sleeved shirt and rubber gloves.

Installation Instructions - Fixed Downtilt Mounting Kits F-084-S4

Assemble mounting kit as per Figures 2 and 3 of this document

1. Attach the mounting kit assembly to the antenna, before trying to clamp the bracket to the pole.

Figure 1: Correctly Assembled Mounting Bracket for Fixed Downtilt Antenna

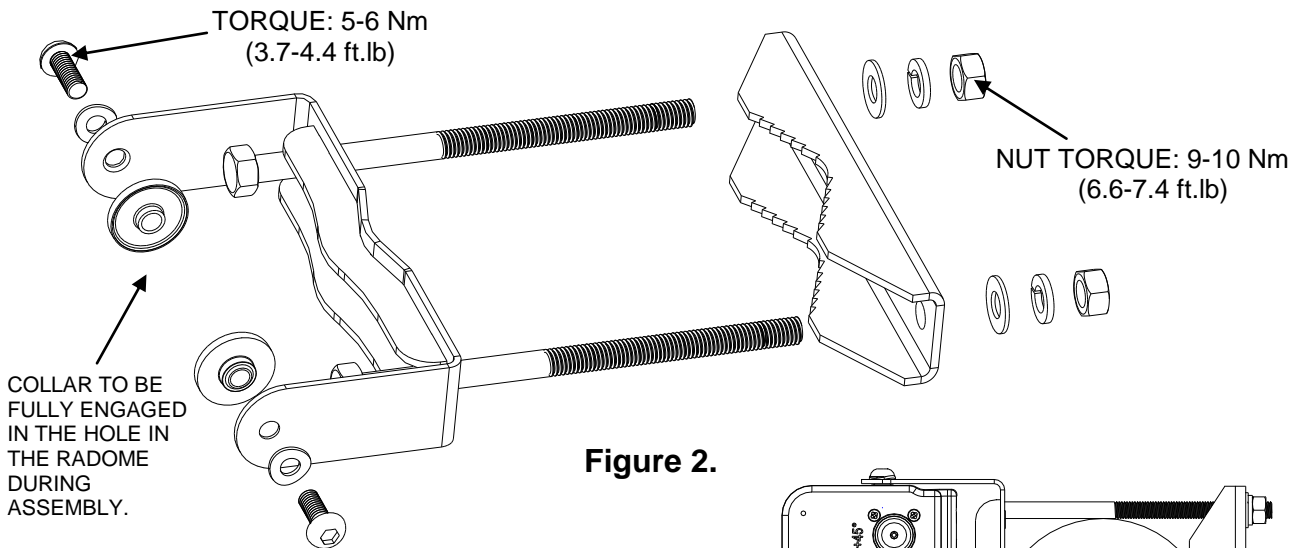
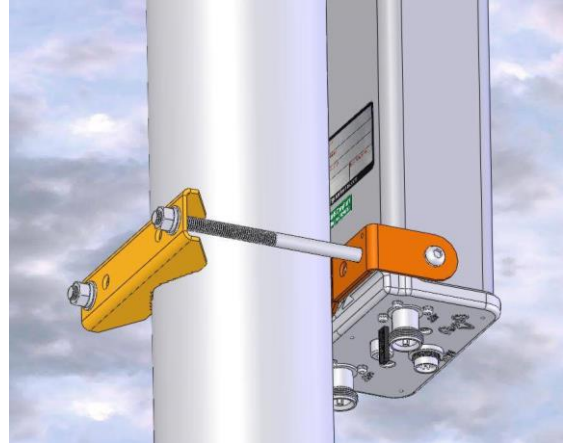


Figure 2.

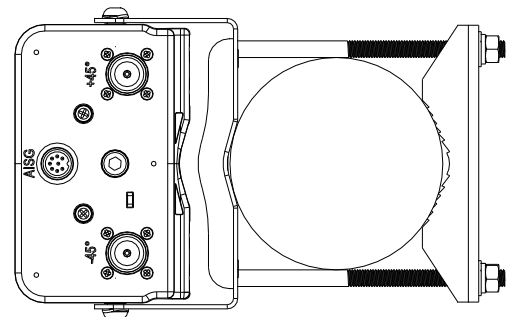


Figure 3.

POSITION SEAL WASHER SO THAT THE 'T' SHAPE IS RETAINED BY THE CUTOUT IN THE TOP CAP OF THE ANTENNA. THE BOTTOM CAP USES A CIRCULAR SEAL WASHER SHOWN IN FIGURE 2. ENSURE THAT BOTH SEAL WASHER TYPES HAVE THE LOCATING COLLAR FULLY ENGAGED IN THE HOLES IN THE RADOME WHEN FITTING THE BRACKET SCREWS.

Figure 2: Fixed Downtilt Mounting Bracket Exploded Assembly (Bottom seal washer shown. 'T' seal washer for top only)
Figure 3: Fixed Downtilt Mounting Bracket Assembled onto Panel Antenna

Installation Instructions - Mechanically Adjustable Downtilt Mounting Kits T-085-S4.

Assemble upper mounting bracket as per Figures 5 and 6 of this document



1. Attach the upper mounting bracket assembly to the antenna, before trying to clamp the bracket to the pole.
2. A scale of the indicated downtilt is provided on the sliding bracket.
 Use scale 'A' when the difference between the mounting brackets is 685mm (27").
 Use scale 'B' when the difference between the mounting brackets is 1145mm (45.1").
 Use scale 'C' when the difference between the mounting brackets is 610mm (24").
 Use scale 'D' when the difference between the mounting brackets is 1010mm (39.8").
3. Accuracy of the indicated downtilt angle is dependent on vertical accuracy of the mounting pole. More accurate results can be achieved using an inclinometer on the rear of the antenna.

Figure 4: Correctly Assembled Top Mounting Bracket for Mechanically Adjustable Downtilt Antenna

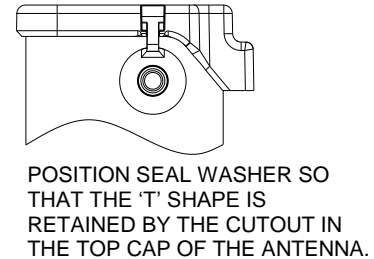
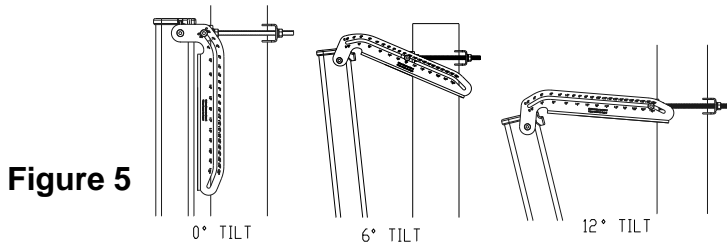
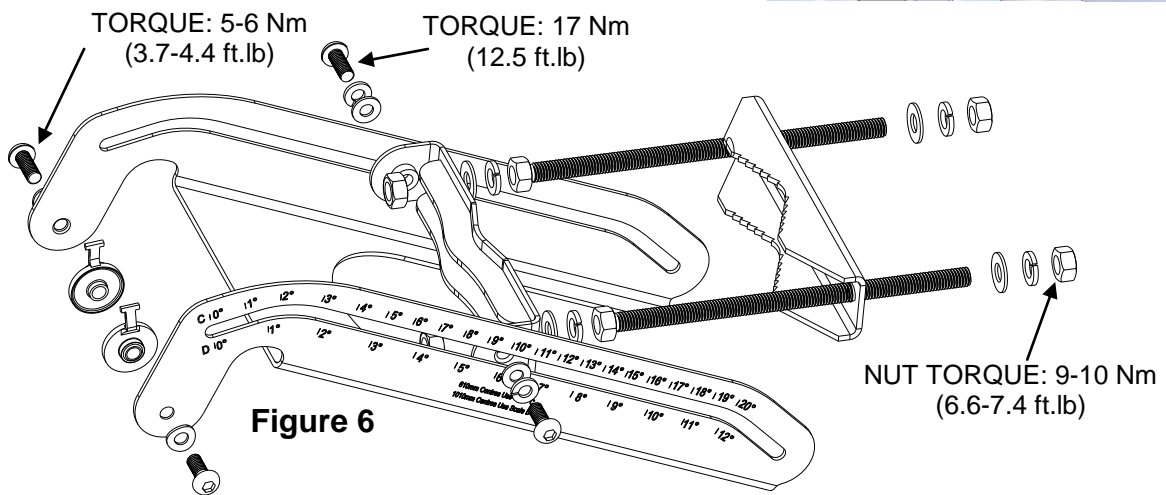
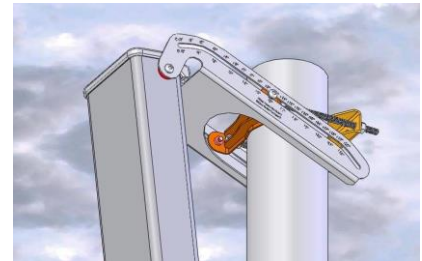


Figure 5: Upper Mounting Brackets Exploded Assembly

Figure 6: Upper Mounting Brackets Tilt Position Examples

Assemble lower mounting bracket as per Figures 7 and 8 of this document



1. Attach the lower mounting bracket assembly to the antenna, before trying to clamp the bracket to the pole.
2. Leave the M6 bolts secured firm, but do not tighten them until the desired downtilt of the antenna has been obtained by adjusting the upper mounting bracket. Then tighten the M6 bolts to specification.

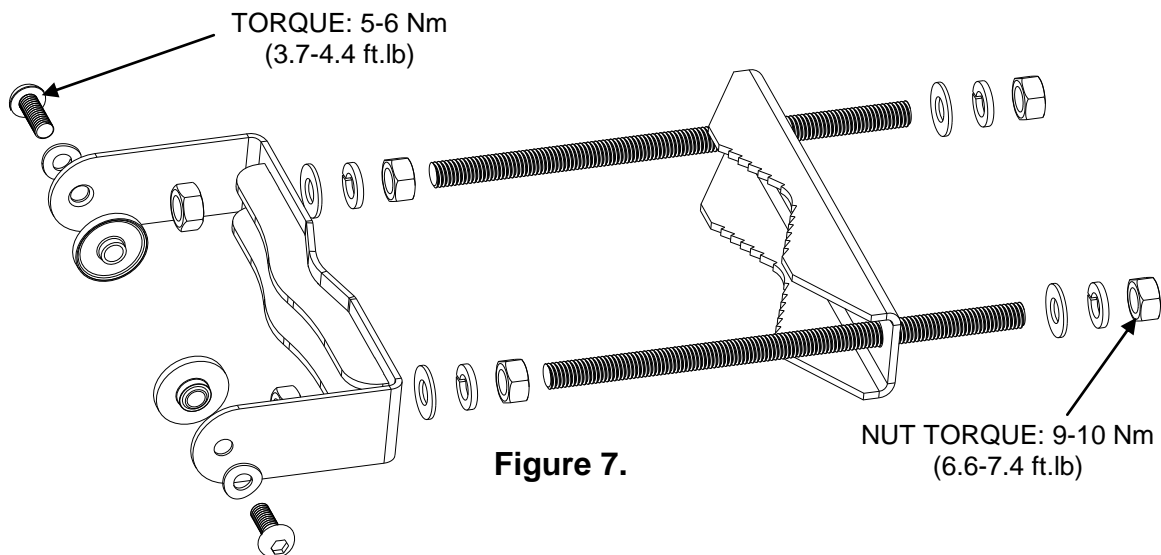


Figure 7.

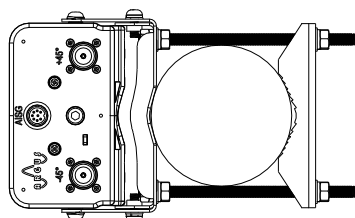


Figure 8.

Figure 7: Lower Mounting Brackets Exploded Assembly

Figure 8: Lower Mounting Brackets Assembly Detail

Operation of Antennas

Fixed Downtilt Antennas

The beam downtilt is factory set.

Electrically Adjustable Downtilt Antennas

The beam downtilt below the horizon is adjusted by rotating the hex socket located at the bottom of the antenna (see Figure 9). Turning the hex socket in a clockwise direction increases the beam downtilt below the horizon. Turning the hex socket in an anti-clockwise direction decreases the beam downtilt below the horizon.

AISG Compliant Adjustable Downtilt Antennas - Fitted with Remote Downtilt Adjustment

AISG Compliant antennas are compatible with AISG compliant control unit equipment. For operation of antennas using AISG compliant controllers see controller documentation.



Figure 9. AISG Compliant Adjustable Downtilt Antenna showing Hex Socket for Manual Adjustment and Horizontal Angle Indicator Scale protruding past face of base.

Electrically Adjustable Downtilt Antennas – Indicator Scale

The downtilt angle in degrees below the horizon is read from the angle indicator scale at the point of protrusion from the antenna base plate. As the downtilt is increased, the indicator scale protrudes further past the face, revealing further graduations of degrees.



WARNING: During downtilt adjustment ensure the hex socket is not turned past the minimum tilt or past the maximum tilt as shown on the downtilt indicator scale. Forcing the hex adjustment beyond this point may lead to damage of the downtilt mechanism. Using power drills and electric screwdrivers to adjust downtilt may also lead to damage of the downtilt mechanism.

Remote Electrical Tilt Connection

The AISG connector fitted to the antenna is designed to accept any AISG compliant cable assembly. After ensuring both connectors are dry push in the mating connector, then tighten the screw lock to between 0.7 and 1.1 Nm (0.5 -0.8 ft.lb). If needed or required by local procedures apply mastic (or similar waterproofing) to the mating connectors.



Tighten the AISG mating connector by hand only. Do not apply any more rotational force to the AISG mating connector than needed to properly mate the seal and do not exceed 1.1 Nm (0.8 ft.lb). Using excessive torque may damage the AISG connection in the antenna.

RF Cable Connection

The female RF connectors fitted to the antenna are designed to fit jumper cables with a standard 7-16 male or N Type male RF connector. After ensuring both mating connectors are dry, push the male connector in and tighten the connector coupling according to the below specification:-

7-16 RF Connector Torque 23 - 28Nm (17 -21 ft.lb)

N Type RF Connector Torque 1.7 - 2.7Nm (1.2 -2.0 ft.lb)

If needed or as required a weatherproofing kit may then be fitted to the connection.



If the RF connectors are tightened beyond the recommend torque the RF connection to the antenna may be damaged.