

A997-0071 Revision C, September 2016

F-074-S4, T-075-S4 & T-115-GL Mounting Kits For Single Band 175mm (7 inch) Profile Panel Antennas

General

This instruction sheet contains all necessary information required to assist in the correct installation of ARGUS Single Band 175mm (7 inch) Profile Panel Antennas.

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.

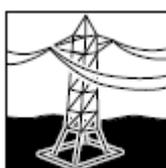
- Antenna
- Mounting kit.
- Hex Keys (5 and 6mm AF)

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



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.

2. Ensure mounting pipe diameter is within the range specified on the mounting kit assembly drawing. For high wind locations a pipe diameter between 75mm and 115mm (3 to 4 ½ inches) is recommended.

Installation Instructions - Fixed Downtilt Mounting Kits F-074-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.
2. Discard 4 plastic M8 sealing washers supplied with mounting kit (not required)



Figure 1: Correctly Assembled Mounting Bracket for Fixed Downtilt Antenna

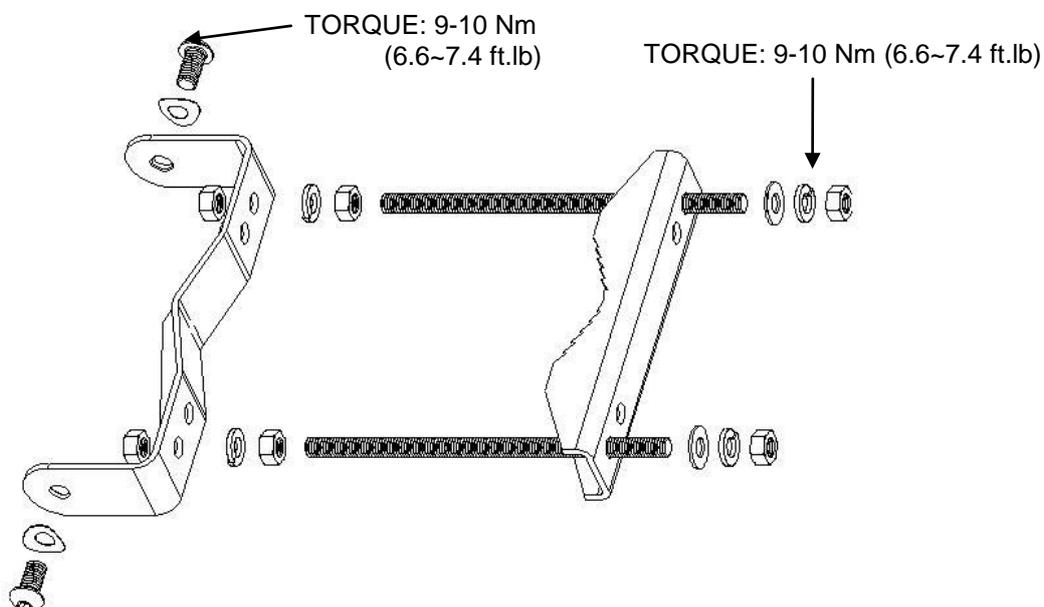


Figure 2.

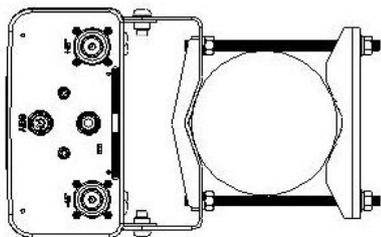


Figure 3.

Figure 2: Fixed Downtilt Mounting Bracket Exploded Assembly

Figure 3: Fixed Downtilt Mounting Bracket Assembled onto Panel Antenna

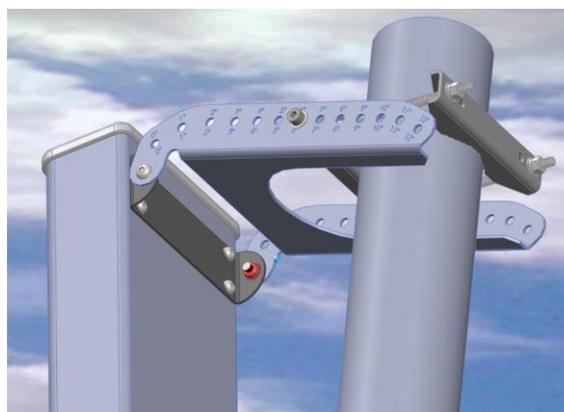
Installation Instructions - Mechanically Adjustable Downtilt Mounting Kits T-075-S4 & T-115-GL

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. An indicated downtilt scale is provided on the sliding bracket. For the T-075-S4 kit- Use scale 'A' when the difference between the mounting brackets is 725mm (28 ½ inches).
Use scale 'B' when the difference between the mounting brackets is 1200mm (47 ¼ inches).
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.
4. Discard 4 plastic M8 sealing washers supplied with mounting kit (not required)

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



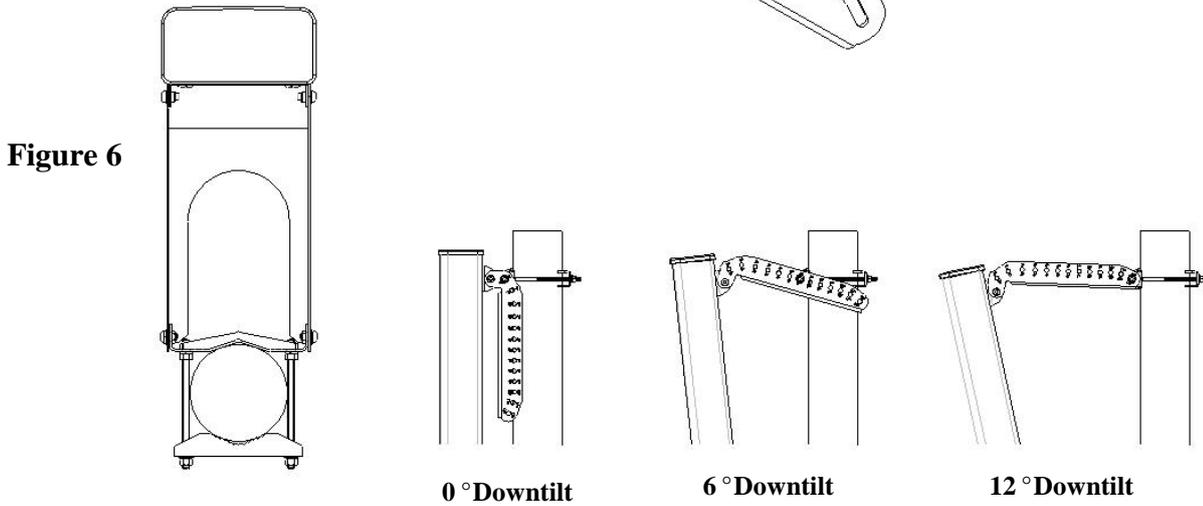
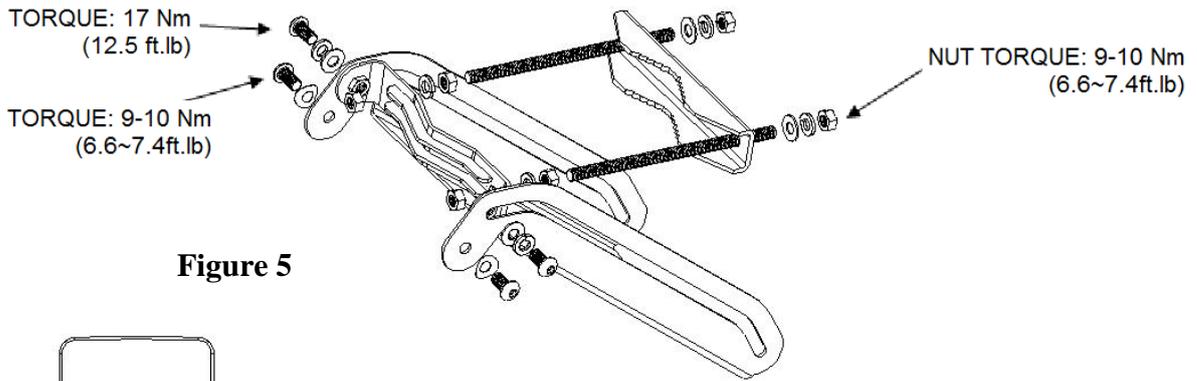


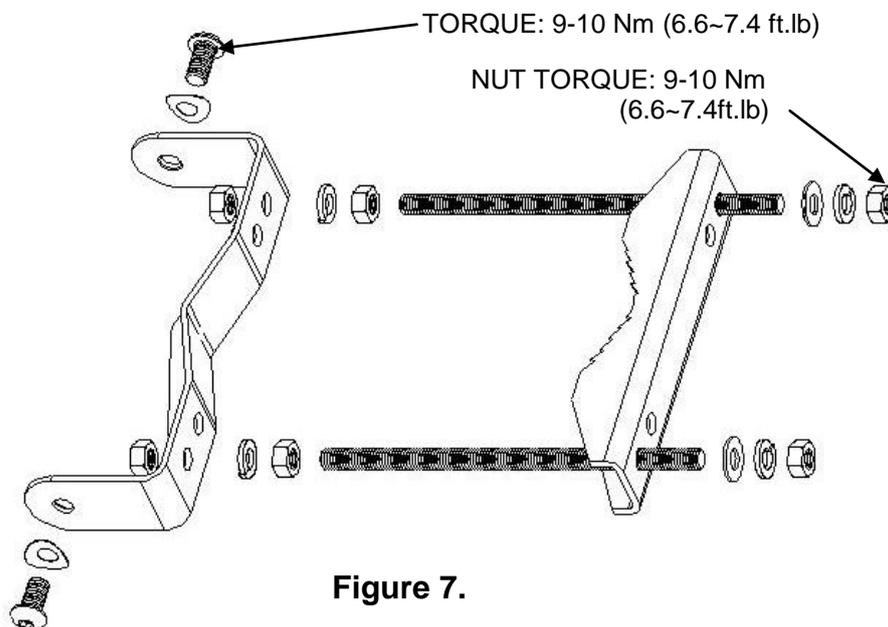
Figure 5: Upper Mounting Brackets Exploded Assembly

Figure 6: Upper Mounting Brackets Assembly Detail

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 M8 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 M8 bolts to specification.



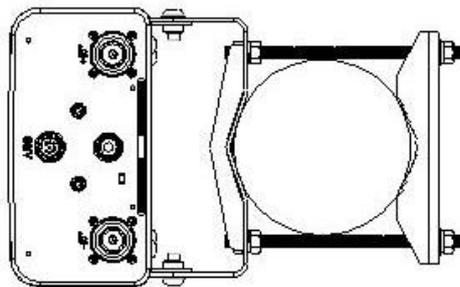


Figure 8.

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.

Manually Adjustable Downtilt Antennas

The beam downtilt below the horizon is adjusted in the range of 0° to 10° 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.

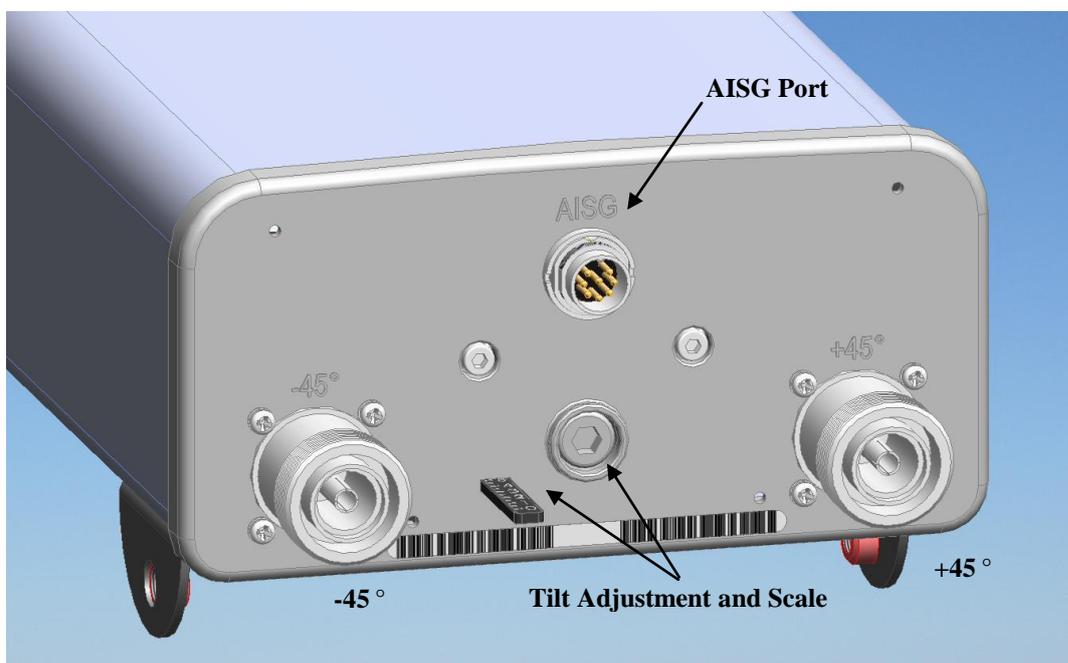


Figure 9. AISG Compliant Adjustable Downtilt Antenna showing Hex Socket for Manual Adjustment and Horizontal Angle Indicator Scale protruding past face of base.

Remote Adjustable Downtilt Antennas

Using a compatible AISG compliant controller the beam downtilt can be remotely adjusted below the horizon in a range from 0° to 10° by connecting a compatible AISG compliant cable with female connector to the AISG port shown in Figure 9. Manual adjustment of the beamtilt is also possible with remotely adjustable antennas using the hex socket as described above for manually adjustable antennas.

Remote 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 range of 0° to 10° 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 7-16 female connectors fitted to the antenna are designed to fit jumper cables with a standard 7-16 RF male connector. After ensuring both mating connectors are dry push the male connector in and tighten the connector coupling to 23 - 28Nm (17 -21 ft.lb). If needed or as required by local procedures 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.