COMMSCOPE®

Instruction Sheet

D701-0013 Revision D, October 2016

296mm Profile Panel Antennas

General

This instruction manual contains all necessary information required to assist in the correct installation of Panel Antennas of 296mm (11.7”) width to a 75 – 115mm (3”-4.5”) diameter pipe when using the mounting kit with clamp bracket. These antennas can be supplied with either fixed electrical beam downtilt (FET), manually adjustable electrical downtilt (MET) or AISG-compatible remotely controlled electrical downtilt (RET). Mechanical downtilt is also available if required, depending on the type of mounting kit selected.

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 are provided and have not been damaged during transport.

- Antenna
- Mounting kit (mounting kit components for each configuration are shown in Figures 2 and 3).
- Hex key 6mm AF (supplied with adjustable downtilt antennas only).

Mounting Kit Type	850mm – 1200mm (33.5” – 43.3”) Antennas	1200mm – 1575mm (43.3” – 62”) Antennas	1575mm – 2700mm (62” – 106.3”) Antennas
Fixed Downtilt	F-042-GL-E	F-042-GL-E	F-042-GL-E
Mechanical Downtilt	T-045-GL-E	T-041-GL-E	T-029-GL-E
Tilt range	0°, 2° -10° in 1° steps	0° - 12° in 1° steps	0° - 8° in 1° steps
Mounting Bracket Spacing Dim A (Fig 4)	716mm (28.2”)	976mm (38.4”)	1400mm (55.1”)

Table 1: Mounting Kit Part Numbers for Different Antennas

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.

CE

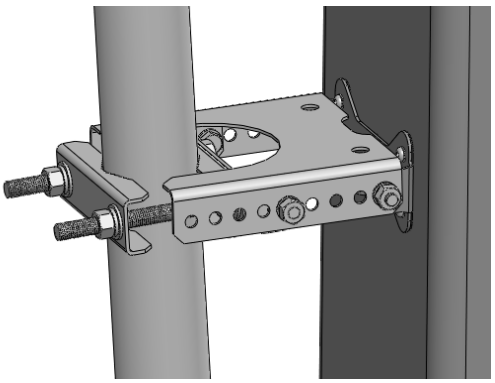
Installation Instructions

- Ensure a torque spanner is used when tightening fasteners, see the mounting kit diagrams on the following pages for the correct torque recommendations.
- Ensure antenna is installed with the connectors at the bottom.

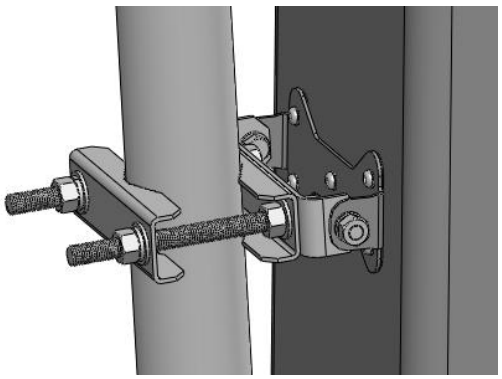
Installation Instructions – Adjustable Downtilt Mounting Kit T-029-GL-E, T-041-GL-E, T-045-GL-E

Assemble mounting kits as per Figure 2 and 3 of this document.

1. Attach the mounting kit assembly to the antenna, before trying to clamp the brackets to the pole.
2. Downtilt angles in 1° increments can be obtained with the correct adjustment of the tilt arm bracket.
   - Downtilt can be achieved by aligning the corresponding hole in the tilt arm to the pivot bracket which mates against the mounting pole, as shown in Figure 4. The first hole is for 1° downtilt*, with each consecutive hole resulting in an increased inclination of 1°.
   (*Note for the T-045-GL-E kit the tilt is 0° then 2° - 10° in 1° steps.)
   - For finer downtilt angle adjustments the distance in between the top and bottom mounting bracket on the pole can be adjusted.
   - For 0° downtilt the tilt arm may be stowed as show in Figure 4.
   - An inclinometer or other angular measuring device may be used to verify downtilt angle as required.



Upper Mounting Bracket Assembly
(To Suit Pipes OD 75-115 mm)



Lower Mounting Bracket Assembly
(To Suit Pipes OD 75-115 mm)

Figure 1: Correctly Assembled Mounting Kit Using Clamp Bracket for Mechanically Adjustable Downtilt Antenna

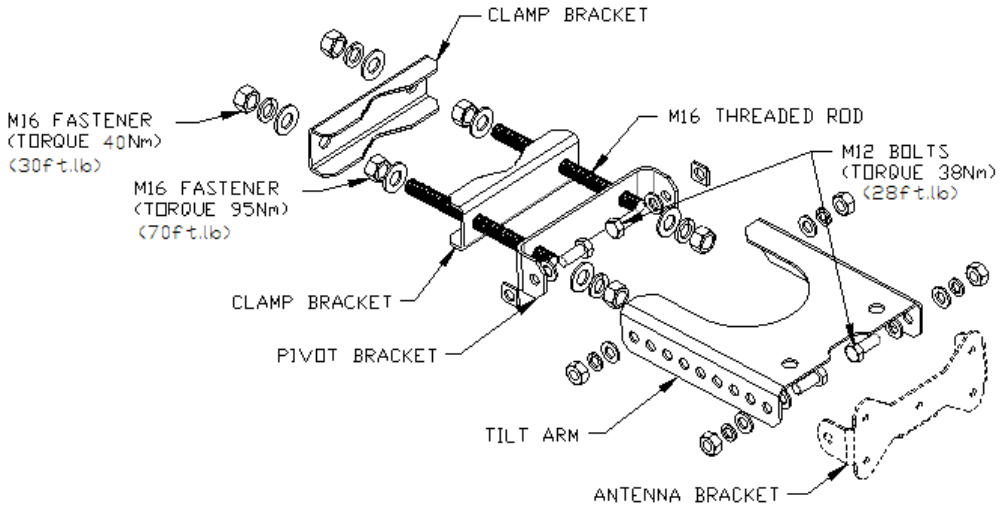


Figure 2: Exploded Assembly for Upper Mounting Bracket using Clamp Bracket

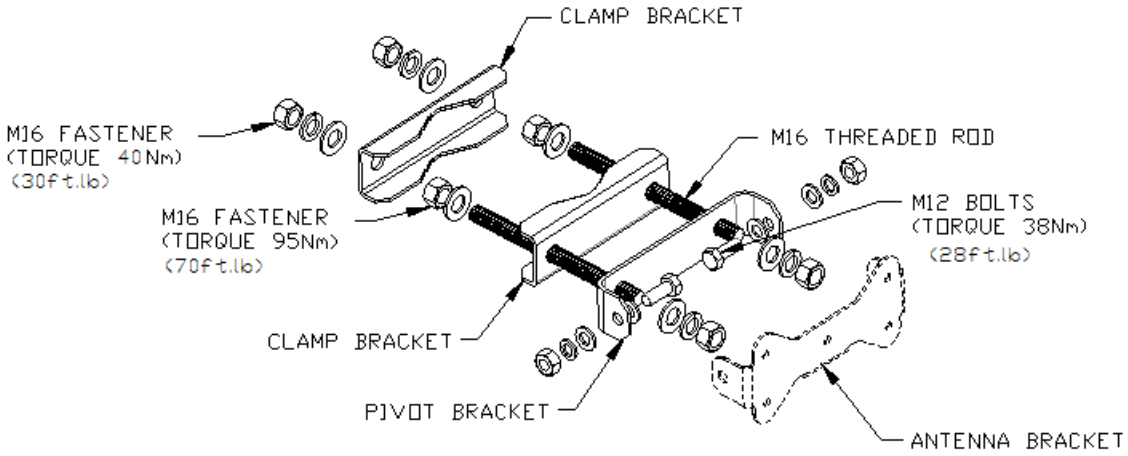


Figure 3: Exploded Assembly for Lower Mounting Bracket using Clamp Bracket
(This configuration should also be used for the upper Mounting Bracket when 0° tilt is required)

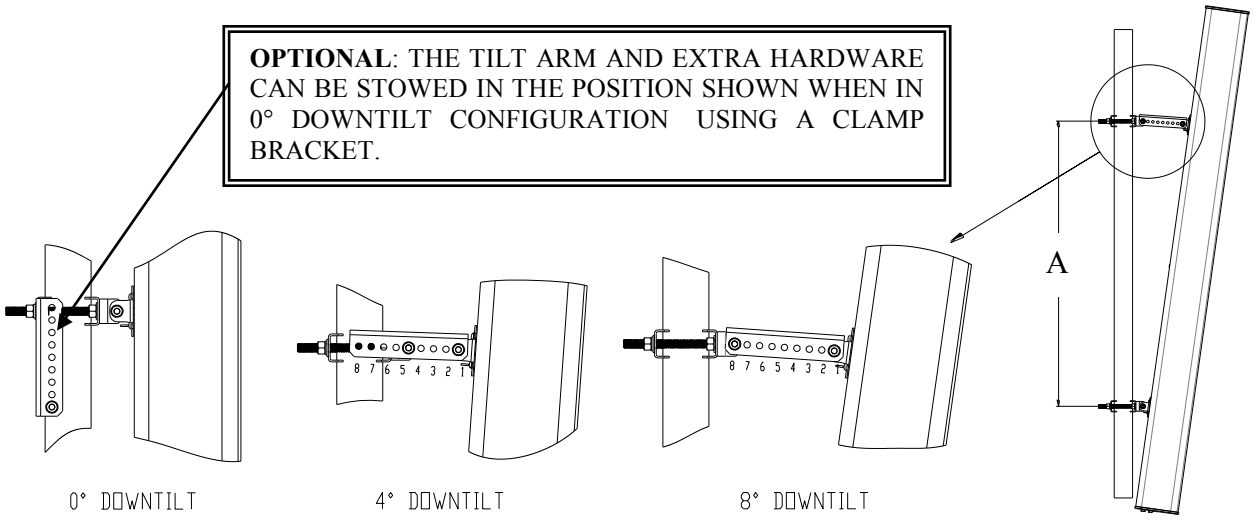


Figure 4: Typical Example of Upper Bracket Placement for Various Downtilts

Operation of Antennas

FET Antennas The beam downtilt is factory set.

MET Antennas The beam downtilt below the horizon is adjusted by rotating the hex socket located at the bottom of the antenna - Figure 5). 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. Beam downtilt setting in degrees below boresight can be read off the scale at the base of the antenna. The downtilt setting is read from the face of the antenna bottom end cap at the point where the scale protrudes.

AISG Compliant RET Antennas AISG Compliant antennas are compatible with AISG compliant control unit equipment. For operation of downtilt using AISG compliant controllers see the controller documentation. Where manual override of RET control is provided at the antenna bottom end cap, operation is identical to that described above for MET antennas.

WARNING: During downtilt adjustment ensure the hex socket is not turned past the minimum and maximum positions 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.**