

# Installation Instructions

Type GPS-TMG-26N, GPS-TMG-40N, GPS-TMG-50N

## GPS Antenna and Mount Kits



**Read these instructions thoroughly before assembly.  
Follow the sequence for proper assembly and operation.**

### Notice

The installation, maintenance, or removal of antenna systems requires qualified, experienced personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

### ANTENNA DESCRIPTIONS

**GPS-TMG-26N** is a self contained GPS antenna and mount kit. The kit includes a right hand circularly polarized antenna that incorporates a 26 dB high performance, low noise amplifier. It also includes mounting hardware to attach the antenna to a vertical pipe within a range of diameters. See **Mounting Pipe Diameters** for each kit.

**GPS-TMG-40N** is a self contained GPS antenna and mount kit. The kit includes a right hand circularly polarized antenna that incorporates a 40 dB high performance, low noise amplifier. It also includes mounting hardware to attach the antenna to a vertical pipe within a range of diameters detailed below.

**GPS-TMG-50N** is a self contained GPS antenna and mount kit. The kit includes a right hand circularly polarized antenna that incorporates a 50 dB high performance, low noise amplifier. It also includes mounting hardware to attach the antenna to a vertical pipe within a range of diameters detailed below.

**Note:** a +5 volt dc bias is required for each of the active antennas and is fed via the center conductor to provide power for the integrated low noise preamplifier. The voltage should already be present.

### MOUNTING KIT DESCRIPTIONS

The Standard Mount Kit includes the Collar Bracket Mount Kit and the L-Bracket Mount Kit. Depending on your requirements, you can use these kits together or separately. Keep remaining materials for future use.

#### Collar Bracket Mount Kit - Part # GPS-TMG-MNT

Refer to Figure 1. The Collar Bracket Mount Kit includes these parts:

Item #	Part Number	Quantity	Description
1a	840045A000	1	Collar
2	740055A000	1	Gasket
3a	600079A000	4	#10-32 UNF x 0.312" screw
4a	600080A000	2	0.25"-20 UNC-3A x 1.0" set screw
5a	750026A000	1	Allen wrench

#### Range of Mounting Pipe Diameters for Collar Bracket Mount Kit

The Collar Bracket Mount Kit attaches the GPS antenna onto a customer-supplied vertical pipe with a diameter ranging from 1.05" (26.7 mm) to 1.315" (33.4 mm). Standard 3/4" and 1" pipe (which has an outside diameter of 1.05" (26.7 mm) and 1.315" (33.4 mm), respectively) can be used.

**Note:** The Collar Bracket Mount attaches to the top of the customer-supplied vertical pipe. Cable installation is through the internal diameter of the pipe.

#### L-Bracket Mount Kit - Part # GPS-TMG-LMNT

Refer to Figure 1. The L-Bracket Mount Kit includes these parts:

Item #	Part Number	Quantity	Description
1b	850124A000	1	L-Bracket
2	740055A000	1	Gasket
3b	600082A000	4	#10-32 UNF x 0.312" screw
4b	850125A000	2	Cleat
5b	600081A000	2	0.25"-20 UNC x 3.5" hex head cap screw
6b	610023A000	2	0.25" lock washer
7b	620007A001	2	0.25"-20 UNC hex nut

#### Range of Mounting Pipe Diameters for L-Bracket Mount Kit

The L-Bracket Mount Kit attaches the GPS antenna onto a customer-supplied vertical pipe with a diameter ranging from 1.05" (26.7 mm) to 1.9" (48.3 mm). Standard 3/4", 1", 1-1/4", and 1-1/2" pipe (which has an outside diameter of 1.05" (26.7 mm), 1.315" (33.4 mm), 1.66" (42.2 mm), and 1.9" (48.3 mm), respectively) can be used.

In the Standard Mount Kit, the L-Bracket Mount Kit can be fitted with the collar to provide additional weather protection.

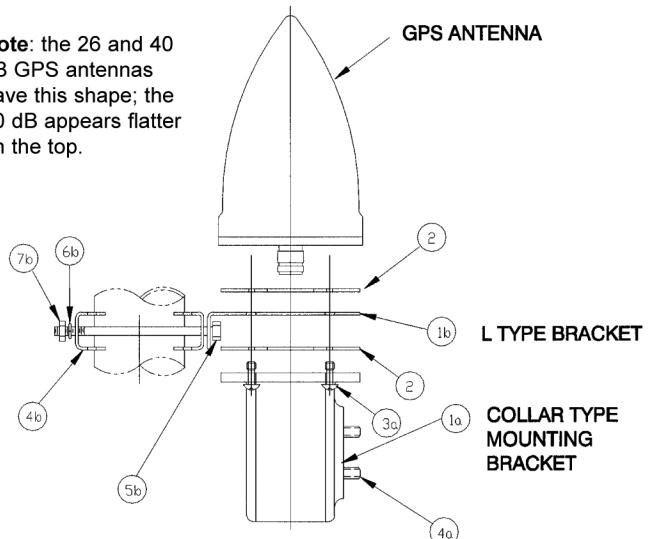


Figure 1: Standard Mount Assembly

## TOOLS REQUIRED FOR INSTALLATION

(1) Philips cross-head screwdriver, #2

(2) 7/16" open end wrenches

## INSTALLING THE STANDARD MOUNT KIT

**Note:** The Standard Mount Kit contains two mounting bracket types. The two brackets can be used together, as shown in the Standard Mount Kit shown in Figure 1, separately as the Collar Bracket Mount Kit shown in Figure 2, or separately as the L-Bracket Mount Kit shown in Figure 3.

Refer to Figure 1.

**1** Before you begin, be sure that the mounting pipe is the correct diameter and free of any components from previous installations.

**2** Attach the L-bracket (1b) to the customer-supplied vertical mounting pipe using bolts (4b, 5b, 6b, and 7b). Locate in the desired position.

**3** Tighten 0.25" hardware.

**4** Insert the cable assembly, fitted with N male connector, through the collar (1a) and gasket (2). Install captive screws (3a). ***Do not install set screws (4a) for this configuration.***

**5** With the gasket (2) on top of the L-bracket, insert the cable assembly through the L-bracket and gasket. Attach the cable assembly to the GPS antenna and tighten the connector as required.

**6** Slide the collar and gasket up to the antenna and attach the antenna by pushing the four captive screws through the gaskets and tighten them into the antenna base.

**7** Install the weatherproofing (not provided with the Standard Mount Kit) that extends from directly underneath the flange on the collar bracket to at least 3" below the bottom of the collar measured on the cable assembly. The unused set screw holes are covered.

## INSTALLING THE COLLAR BRACKET MOUNT KIT

Refer to Figure 2.

**1** Install captive screws (3a) and set screws (4a) in collar (1a), then push captive screws (3a) through gasket (2) holes in order to retain the gasket.

**2** Insert the cable assembly, fitted with N male connector, through the customer-supplied vertical mounting pipe, and collar and gasket assembly previously prepared.

**3** Attach the cable assembly to the GPS antenna and tighten the connector as required.

**4** Attach the collar and gasket assembly to the antenna and tighten the captive screws (3a) into the antenna base.

**5** Slide the assembly down so that the collar slides over the mounting pipe. Tighten the set screws (4a).

**6** Install weatherproofing (not included with the Collar Bracket Mount Kit) that extends from directly underneath the flange on the collar bracket to at least 3" below the bottom of the collar measured on the cable assembly.

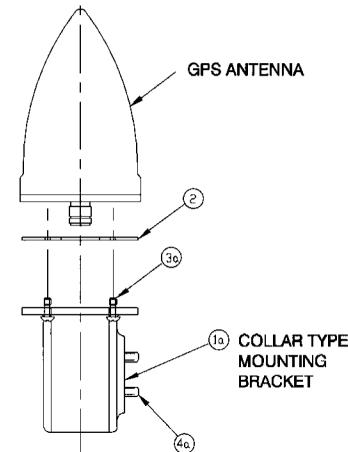


Figure 2: Collar Bracket Mount Kit

## INSTALLING THE L-BRACKET MOUNT KIT

**1** Attach the L-bracket (1b) to the customer-supplied vertical mounting pipe using bolts 4b, 5b, 6b, and 7b. Locate in the desired position.

**2** Tighten 0.25" hardware.

**3** With a gasket (2) on top of the L-bracket, insert the cable assembly through the L-bracket and gasket. Attach the cable assembly to the GPS antenna and tighten the connector as required.

**4** Insert the four short screws (3b) through the L-bracket and gasket and attach the antenna and tighten the screws. ***Do not use captive screws for this configuration.***

**5** Install weatherproofing (not provided with the L-Bracket Mount Kit) that extends at least 2" below the bottom of the connector on the cable assembly to directly underneath the base plate of the antenna.

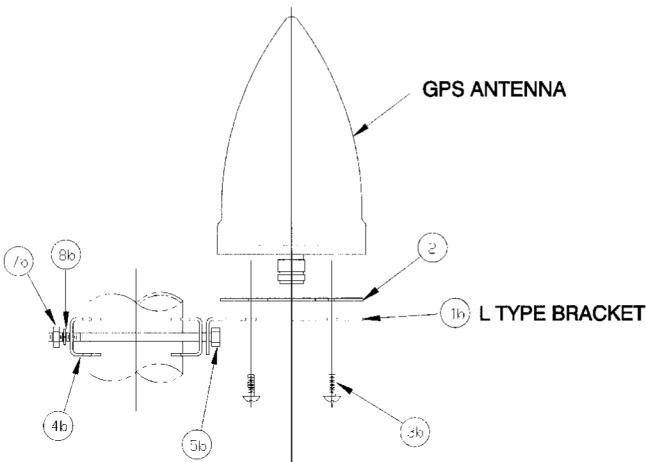


Figure 3: L-Bracket Mount Kit