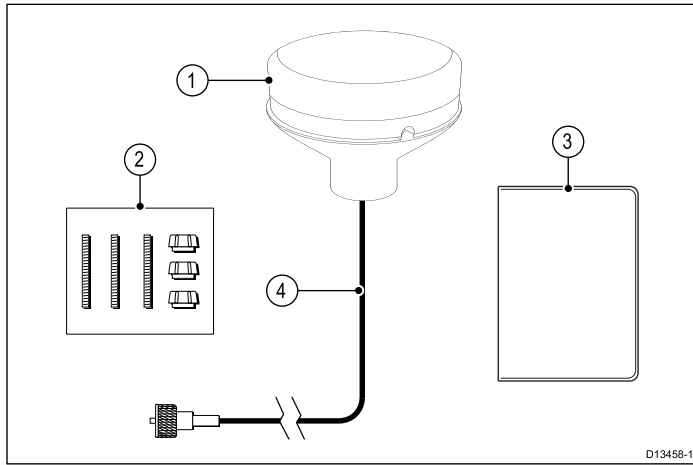


AIS GPS antenna installation

Parts supplied



Item	Description	Quantity
1	GPS Antenna (shown here attached to the separate pole mount adaptor).	1
2	M3x40 fixing studs and thumb nuts.	3
3	Documentation pack (including mounting template).	1
4	10 m (32.8 ft.) cable.	1

Antenna Mounting & EME Exposure

For optimal radio performance and minimal human exposure to radio frequency electromagnetic energy, make sure the antenna is:

- connected to the radio before transmitting
- properly mounted
- located where it will be away from people
- located at least 1.5 metres (5 feet) from the radio's main unit

GPS antenna location requirements

A GPS antenna is supplied with the transceiver and must be installed in accordance with the instructions provided. Do NOT connect any other GPS antenna to the AIS unit's GPS ANT (antenna) connector.

The GPS antenna can be mounted either on a flat horizontal surface or on a suitable pole.

- If you intend to surface mount the antenna, ensure you have access to the underside of the mounting surface.
- If you intend to pole-mount the antenna, the pole needs to have a 1 inch 14 TPI thread.

Important: The GPS antenna must be mounted in a location that provides a good direct line of site to the entire sky, around the horizon.

Ensure that the selected mounting location is:

- Open and clear of any obstructions (such as masts, search lights, or other structures) that could block line-of-sight to the sky.

- As low as possible, to keep the antenna as stable as possible. The more stable the antenna, the more effectively it will track satellites and provide stable data.
- As far as possible (at least 1 m (3 ft)) from other antennae and electronic equipment.

Do NOT mount the antenna:

- In any area where it could be stepped on or tripped over.
- Up a mast. This will cause the antenna to swing and give significant errors in position data.
- In the direct path of a radar beam.

Fitting the antenna

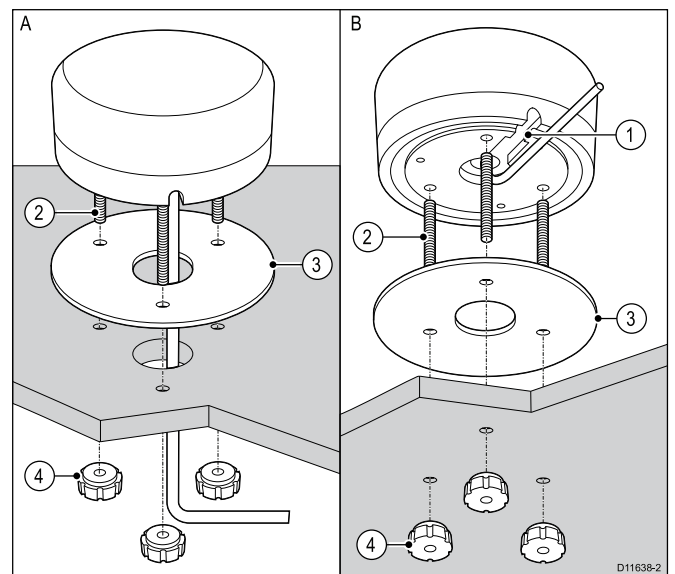
To fit the antenna:

1. Select a suitable location for the antenna, as described in the *GPS antenna location requirements* section.
2. Fit your antenna using either the *Surface mounting* or *Pole mounting* procedure, as appropriate. This procedure is described in this document.
3. Ensure that you follow the cable routing and connection requirements, as detailed in the installation instructions for the product that the antenna will be connected to.

Surface mounting

When surface mounting the GPS antenna, you can route the cable either centrally (Option A) or from the side of the antenna (Option B).

1. Remove the 3 screws securing the GPS antenna to its pole mount adaptor, then remove the adaptor from the antenna.
2. Using the supplied gasket, mark the three 4 mm (0.16 in.) mounting holes, and then drill the holes out to accept the M3x40 mounting studs.
 - OPTION A: If the cable is going to pass through the mounting surface, drill a 19 mm (0.75 in.) center hole for the cable.
 - OPTION B: If the cable is to be routed from the side of the antenna (i.e. above the mounting surface), run the cable through the cable channel (1). If you do not route the cable through the channel, you could damage the cable.



3. Screw the three M3x40 mounting studs (2) into the underside of the antenna.
4. Stick the supplied gasket (3) to the mounting surface, ensuring that the holes on the gasket correspond with the drilled holes.
5. Route the cable as follows:
 - For Option A, feed the cable down through the center hole.

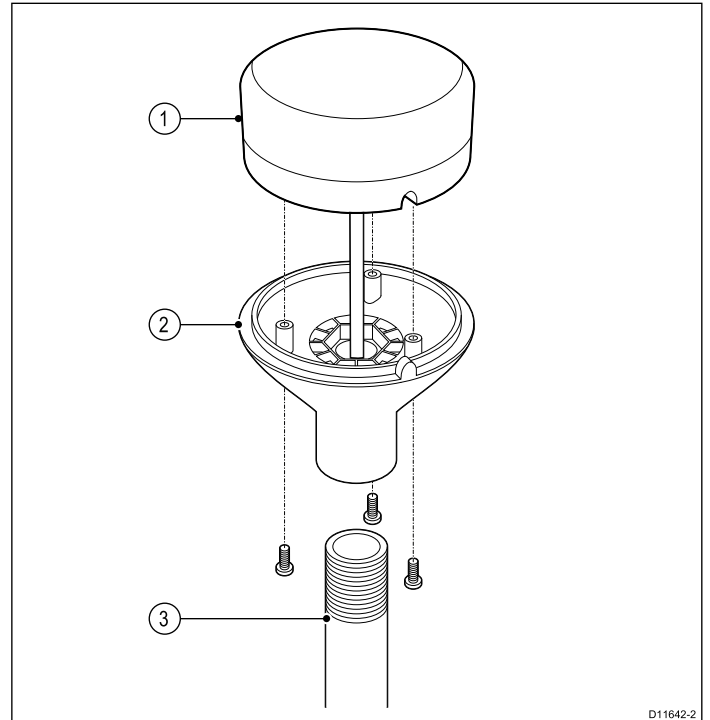
- For Option B, route the cable along the cable channel.
6. Carefully place the antenna so the mounting studs pass through the holes in the mounting surface.
 7. Secure the antenna to the surface using the 3 thumb nuts (4).

Note:

- The thumb nuts supplied with your product may differ slightly from those shown in the illustration.
- Only use the studs and thumb nuts supplied with your product.
- If you are replacing an older version of the GPS antenna, you must mount the newer GPS antenna using only the studs and thumb nuts supplied with the newer GPS antenna.

Pole mounting

If you want to pole-mount the GPS antenna, obtain a pole of suitable length with a 1 inch 14 TPI thread.



1	GPS antenna
2	Pole mount adaptor
3	Mounting pole (not supplied)

1. Ensuring that the *GPS location requirements* are met, securely attach the pole to a suitable, secure point.
2. Remove and retain the screws securing the GPS antenna to the pole mount adaptor, then separate these two items.
3. Screw the pole mount adaptor fully onto the pole and ensure it is secure.
4. Feed the antenna cable through the center of the pole mount adaptor and then down through the center of the mounting pole.
5. Ensuring you do not trap the cable, place the GPS antenna on the pole mount adaptor so the screw holes are aligned, then secure the antenna with the 3 screws removed during step 2.