

# LIGHTBRIDGE AZIMUTH ENCODER INSTALLATION

1) Remove the existing azimuth tension knob/bolt.

2) Some LightBridge models ship with a 5/16" diameter azimuth bolt and others with a larger 3/8" diameter bolt. Your kit is supplied with replacement bolts of both diameters. Identify the correct diameter replacement pivot bolt and fit the supplied large diameter timing pulley onto it. The set screw of the pulley should be aligned with the flat on the bolt and then tightened with the supplied 1/16" hex key. Insert the new bolt and pulley into the mount. Adjust the tension as required as was done with the original tensioning knob. With the OTA removed, flip the mount over and secure the supplied appropriately sized nut to the end of the bolt where it protrudes from beneath the ground board and tighten by finger. Ensure that when the mount rotates in azimuth that the bolt and associated pulley stay in a fixed position with respect the ground board. If the bolt and pulley slips, then positional accuracy will be lost, so this is an important check.

3) Install the timing belt around the smaller diameter pulley on the azimuth encoder shaft. Wrap the other end of the timing belt around the larger diameter azimuth pulley. Whilst ensuring the the belt stays engaged in the teeth of both pulleys, move the encoder bracket toward the open end of the rocker box and a few inches away from the inside left side of the rocker, as per Fig. 1, ensuring that the belt is snug. Mark a couple of points for the screws that will be used to fasten the bracket. Using the supplied screws and washers, mount the bracket to the inside base of the rocker. There is no need for the belt to be overly tight, simply snug. The encoder is mounted in a slot in the bracket via a hex nut and washer and can be adjusted to tension the belt correctly if need be as shown in Fig 2. The smaller pulley on the encoder can also be adjusted up or down the encoder shaft to match the height of the larger diameter pulley. The supplied 1/16" hex key can be used to loosen or fasten the set-screw found on the bore of the pulley if need be. The supplied 5000 step encoder on the bracket is geared by a ratio of 2:1 by the larger and smaller pulley, thus creating an effective resolution of 10,000 steps, which is the value you will enter into the SETUP ALT STEPS menu of your Argo Navis.

4) Affix two of the supplied self adhesive cable clips at appropriate places near the encoder bracket which will act as strain-reliefs for the encoder cable.

5) After completing both the installation of the azimuth encoder and the altitude encoder (see LightBridge Altitude Encoder Installation sheet), be sure to perform a Daytime Encoder Test (see the Argo Navis User's Manual for the Daytime Encoder Test which appears under a title by the same name in the section entitled SETUP MNT ERRORS)

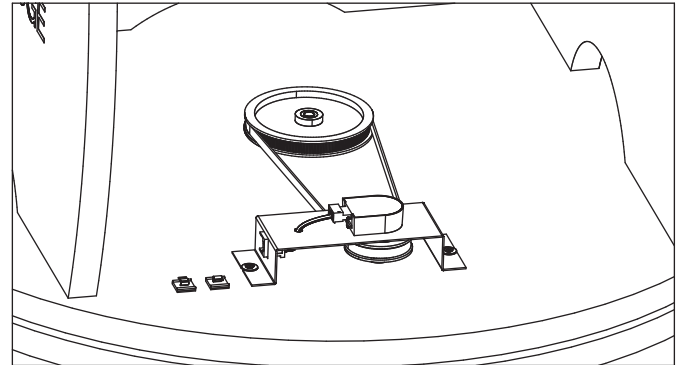


Fig. 1

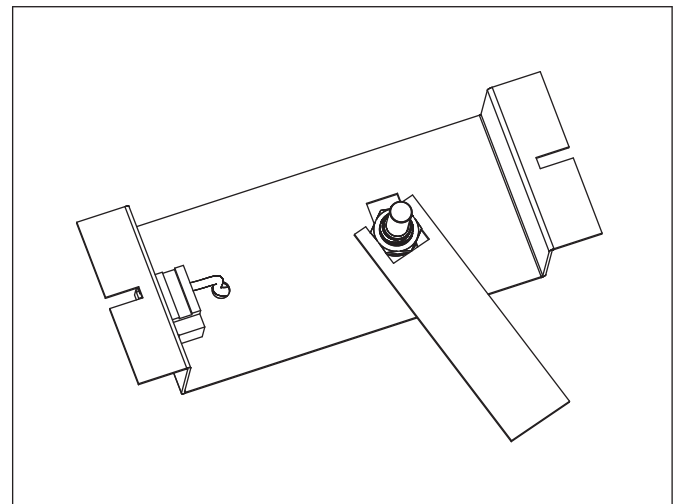


Fig. 2

## PARTS LIST -

1. Azimuth tension pulley
2. Azimuth pulley bolts both 5/16" and 3/8" diameter to suit mount variants
3. Azimuth pulley nuts both 5/16" and 3/8" to suit mount variants
4. Azimuth encoder with small pulley and bracket
5. Azimuth encoder belt
6. 2 x 5g x 16mm self-tapping mounting screws
8. 2 x small washers
9. Encoder hex nut wrench
10. 1/16" hex key for set screws on pulleys
11. 2 x cable clips