## GUAN SHENG OPTICAL (GSO) 16" TRUSS DOBSONIAN AZIMUTH ENCODER INSTALLATION

1) Remove the existing azimuth tension knob/bolt and replace it with the supplied larger diameter pulley with the threaded shaft, being careful to retain the existing washers and ball bearing (see Fig 1). It is important that the pulley stays fixed with respect the ground board. Therefore it is recommended to tension the pulley snugly. This should have no adverse effect on the smooth feel of the mount when it is rotated in azimuth.





2) Carefully flip the mount over to reveal the base of the ground board and snugly fasten the supplied 5/16" hex nut to the threaded shaft of the azimuth pulley (see Fig 2a and 2b). Do not over-tighten.



Fig. 2a

Fig. 2b

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. 3, 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 4. 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. A hex key is supplied for the set-screw found on the bore of the smaller pulley.

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 Altitude Encoder Installation sheet), be sure to perform a Daytime Encoder Test (see Daytime Encoder Test sheet)

## PARTS LIST -

- 1. Azimuth tension pulley
- 2. Azimuth 5/16" hex nut
- 3. Azimuth encoder with small pulley and bracket
- 4. Azimuth encoder belt
- 5. 2 x #6 self-tapping mounting screws and washers
- 6. Encoder hex nut wrench
- 7. Hex key for set screw on small pulley
- 8. 2 x cable clips



Fig. 3



Fig. 4