LIGHTBRIDGE ALTITUDE ENCODER INSTALLATION

1) The three-armed altitude encoder mounting bracket comes with two screws preinstalled. Place the bracket onto the bearing as shown in Fig 1. If your scope has an altitude brake, ensure that the arms of the bracket are oriented in such a way that when the mount rotates, that they will not interfere with the brake. Alternatively, mount the bracket on the other bearing. When correctly oriented, the encoder coupling will be on the outside of the bearing and the heads of the screws will be towards the inside of the mount. A third M3x8 button head screw is in the bag of parts. Using the supplied 2mm hex wrench, fasten the third screw and adjust all screws evenly so that their heads grip onto the bevelled part of the bearing ah shown in Fig 2. When doing so, ensure that the face of the three-armed bracket is parallel with the face of the bearing and that the encoder coupling is precisely at the center of rotation. Centering of the encoder coupling is important to help ensure that the encoder accurately reports where the mount is pointing. Once the accurate positioning of the button head screws is ensured, you may like to consider using a drop of Loctite 242 Threadlocker (blue colored liquid, not red) on the threads to hold them in place. Loctite is available from good hardware stores. See http://www.wildcard-innovations.com.au/images/Loctite242.pdf

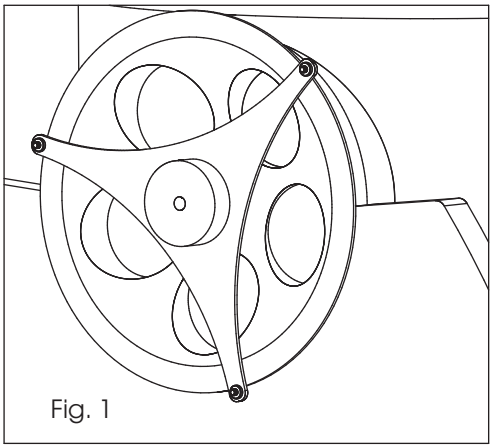

Fig. 1

3) The encoder coupler socket head screw is countersunk within the plastic encoder coupling. Using the supplied M3 hex wrench, loosen the encoder coupler screw by quarter of a turn. Insert the encoder shaft all the way into the coupler, Fasten the encoder shaft into the coupler by gently tightening the socket head screw. Do not over-tighten, a half-turn should do.

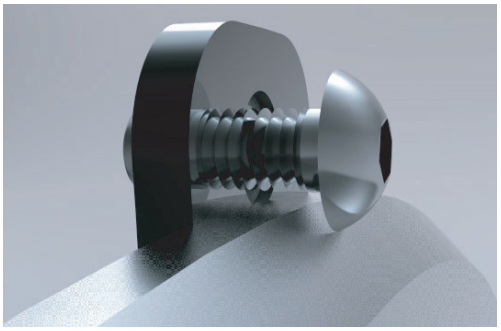

Fig. 2

4) Insert the supplied 5/16" socket head shoulder screw into the circular tangent arm locating coupler as seen in Fig 3. With one hand, rotate the tangent arm around to approx. the 4 o'clock position as shown in Fig 4. With the other hand, slide the locating coupler beneath the slot in the tangent arm so that the shoulder screw is mid-way along the length of the slot. Being careful not to shift the position of the locating coupler, remove the shoulder screw so as to allow the tangent arm to be positioned out of the way. Using the three mounting holes as a template, carefully spot three holes approximately 2mm deep using a 2mm drill bit. Use three supplied 5g x 16mm self-tapping wood screws and fasten the locating coupler in place. Locate tangent arm slot above the locating coupler. Thread supplied 5/16" socket head shoulder screw through the slot and into the locating coupler. Tangent arm should be free to 'float' and slide on silver colored shoulder of shoulder screw as shown in Fig 3.

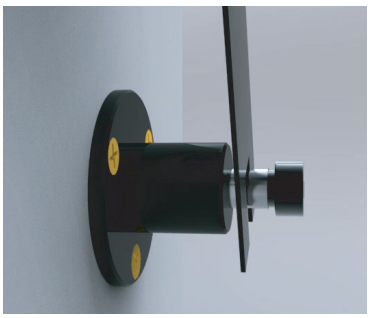

Fig. 3

5) Fasten two of the supplied self-adhesive cable clips near the end of the tangent arm to act as strain reliefs for the encoder cable as seen in Fig 4. The clip closest to the end of the tangent arm should have its opening facing upwards and the clip to its left oriented with its opening facing downwards as seen in Fig 5.

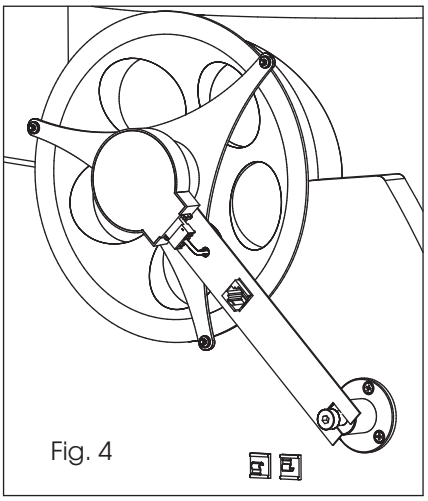

Fig. 4

PARTS LIST -

1. Three-armed altitude encoder mounting bracket with 2 x M3 button screws and integrated encoder coupler
2. 1 x M3 screw for three-armed altitude encoder mounting bracket
3. M2 hex key for M3 button head screws on three-armed bracket
4. M3 hex key for M4 coupler socket head screw
5. Altitude encoder and tangent arm bracket
6. Circular tangent arm locating coupler
7. 5/16" socket head shoulder screw
8. 3 x 5g x 16mm self-tapping wood screws
9. 2 x cable clips

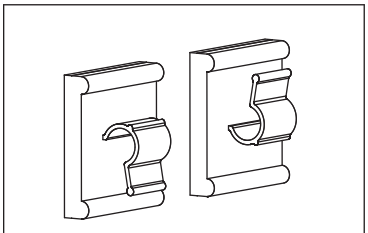

Fig. 5