INSTALLATION OF ENCODERS AND ENCODER HOUSINGS –400 MOUNT
400NC (purchased separately)

Parts List:

1 Right Ascension (R.A.) Encoder housing (black anodized)
1 Declination (Dec.) Encoder housing (black anodized)
1 R.A. Axis Adapter (clear anodized - silver colored), labeled R.A.

To install your encoders, first remove the telescope from your mount. Remove your declination counter weight(s) and declination counterweight shaft.

**Fitting Declination Encoder Housing**

1. If the encoders were purchased with the 400 mount, it is likely that the declination axis adapter and encoder housing have already been installed. No further action will be required, as this encoder will remain in place.

2. If the encoders were purchased separately, the silver-colored Dec. axis adapter may be inside the black Dec. axis encoder housing. If it is, remove it now.

3. Thread the dec. axis adapter into the end of your dec. axis (from where you earlier removed the dec. counterweight shaft). Final tightening should be done with firm hand pressure. Normally the Dec. axis adapter will not be removed.

4. If you look into the black encoder housing, you will see the encoder itself mounted at the rear of the housing. When this installation procedure is complete, the encoder shaft will insert into the center hole of the Dec. axis adapter. This allows the encoder to read the motion of the declination shaft as the declination axis moves.

5. Thread the Dec. encoder housing onto the Dec. axis housing. You may need to wiggle the encoder housing gently to engage the shaft of the encoder with the hole in the center of the Dec. axis adapter. When the threading is complete, tighten up with firm hand pressure since normally this encoder housing will not be removed.

6. Thread the counterweight shaft into the rear of the Dec. encoder housing.

**Fitting Right Ascension Encoder Housing**

1. If the encoders were purchased with the 400 mount, it is likely that the right ascension axis adapter and encoder housing have already been installed. Please continue to read these directions since you may need to remove and reinstall the encoders if you use a polar alignment scope. Since the polar axis telescope and R.A. axis adapter thread into the same location, you will need to switch back and forth between them as needed. If you use the JMI NGC MAX or Mini MAX Digital Setting Circles, you can use the "polar align" mode in these units instead of a polar alignment scope.

2. If the encoders were purchased separately, the silver-colored R.A. axis adapter may be inside the R.A. axis encoder housing. If it is, remove it now.

3. Thread the R.A. axis adapter into the end of your R.A. axis (if your polar alignment scope is fitted you must remove this first along with the polar alignment scope adapter). Use moderate hand pressure to tighten the R.A. adapter since you may need to remove it to install the polar axis telescope at a later time.
4. If you look into the black encoder housing, you will see the encoder itself mounted at the rear of the housing. When the installation procedure is complete, the encoder shaft will insert into the center hole of the R.A. axis adapter. This allows the encoder to read the motion of the R.A. shaft as the right ascension axis moves.

5. Now thread the R.A. encoder housing onto the R.A. axis housing. You may need to wiggle the encoder housing gently to engage the shaft of the encoder (located within the R.A. axis housing) with the hole in the center of the R.A. axis adapter. Tighten the 3 thumbscrews evenly to secure in place.

6. The hardware for your encoders is now installed. For actual set-up procedures for Micro MAX, Mini MAX or NGC MAX, digital readouts refer to the relevant operating manual.