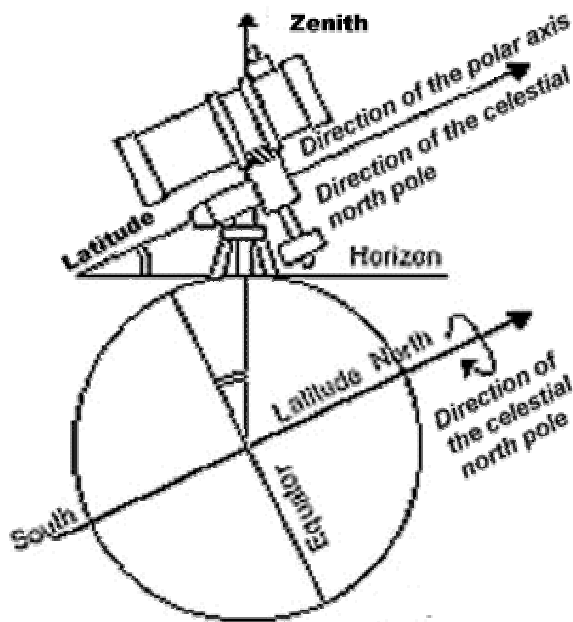


# SUSSEX ASTRONOMY CENTRE

## Information Sheet

### Rough Polar Alignment



Caption: By matching the latitude angle of the telescope mount with the latitude of your observing site, you can easily approximate the position of the North Celestial Pole (NCP).

For ordinary visual observing, the telescope's polar axis must be aligned to the Earth's pole. This simply means positioning the telescope so that the polar axis is aimed up at Polaris. The easiest way to accomplish this is to rotate the telescope tube to read  $90^\circ$  in declination. In this position the telescope will be parallel to the polar axis. Now, move the telescope, tripod and all, until the polar axis and telescope tube are pointed towards Polaris. Finally, match the angle of your telescope's polar axis to the latitude of your observing location. Most telescopes have a latitude scale on the side of the mount that tells you how far to angle the mount for a given latitude (see your telescope owner's manual for instructions on how to make this adjustment). This adjustment determines how high the polar axis will point above the horizon. For example, if you live at  $50^\circ$  latitude, the position of Polaris will be  $50^\circ$  above the northern horizon. Remember your latitude measurement need only be approximate; in order to change your latitude by  $1^\circ$  you would have to move your observing position by 70 miles! Polaris should now be in the field of view of an aligned finder scope. Continue making minor adjustments in latitude and azimuth (side to side), centering Polaris in the finder's cross hairs or low power eyepiece. This is all that is required for a polar alignment good enough to use your telescope's slow motion controls to easily track a star or planet across the sky. However, in order to take full advantage of the many features of your telescope (such as setting circle and astrophotography capability) a more precise polar alignment will be necessary.