

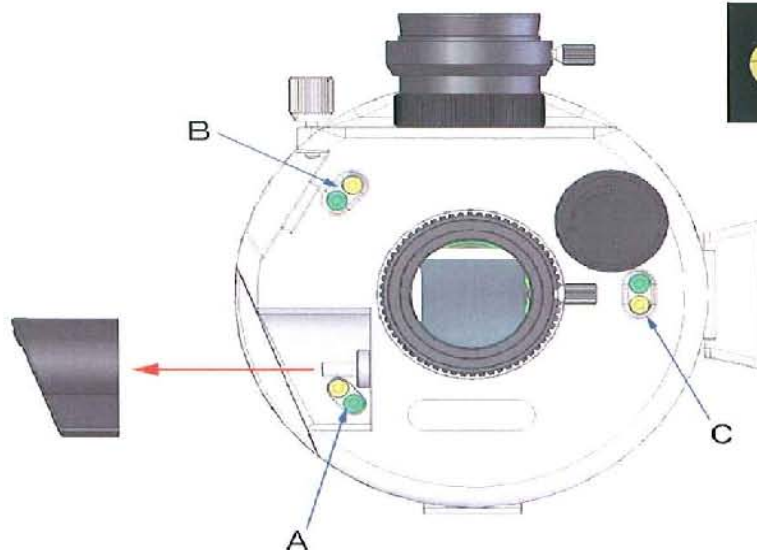
# VMC110L OPTICAL TUBE UNIT

## HOW TO COLLIMATE THE OPTICAL AXIS

There are three pairs of the collimation adjustment screws (A, B & C) on the back frame of the optical tube as illustrated below (Fig. 1). The screws B and C are covered with black rubber caps. The screws A are behind the flip mirror lever. When using the screws A, remove the flip mirror lever.

Each pair of the collimation adjustment screws consists of a pushing screw and a pulling screw. In the Fig. 1, the pushing screw is colored yellow and the pulling screw is colored green. These screws are glued. Before using these screws to make collimation adjustments, dissolve the adhesive agent with thinner or alcohol, otherwise heads of the screws may be broken with a screw driver.

**Fig. 1**



**Fig. 2**



When making a star image out of focus, you can see a dark silhouette of the secondary mirror in the field of view as shown in the Fig. 2. If the dark silhouette of the secondary mirror is not centered, collimation adjustments will be needed. To center the dark silhouette, tighten the pushing screw toward which the dark silhouette is out of center. If the pushing screw cannot be tightened any more, loosen the pulling screw once before tightening the pushing screw. It is advisable to start with a low-power eyepiece, and then use a high-power eyepiece in order to achieve good collimation adjustments.

While collimating your VMC110L it is highly advised to collimate the telescope using the straight through port of the telescope. Also, when checking collimation through the right angle port, be sure the flip mirror selector switch is fully seated in the down position. This will ensure proper mirror placement.